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July 1, 1999

Alan D Rodgers
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TRANSMITTAL OF ANNUAL LANDFILL GROUNDWATER MONITORING REPORT—MW-086-99

Enclosed are (6) copies of the recently revised Groundwater Monitoring Reports for the present sanitary landfill. This report should be submitted as the final report to the Department of Energy, Rocky Flats Field Office (DOE/RFFO), and the Colorado Department of Public Health and Environment (CDPHE) Solid Waste Division. From the annual landfill assessment, CDPHE's Solid Waste Division continues to be satisfied with our program for monitoring groundwater and its application of the regulations which can be applied to the landfill site. Please ensure that (4) of the enclosed 6 copies, are equally transmitted to DOE/RFFO, and CDPHE at the addresses below. The remaining (2) reports are for your records.

DOE, RFFO
Lisa O'Mary
Building 460

CDPHE—Hazardous Materials and Waste Management Division
Attn: Glenn Mallory
4300 Cherry Creek Drive South
Denver, CO 80222-1530

A request was made by the RFETS Water Management Division to submit this Groundwater Report as part of the annual Rocky Flats Cleanup Agreement Groundwater Monitoring Report provided to CDPHE each November. I talked to Roger Doak with the CDPHE Solid Waste Division. He has no problem with this change in reporting as long as we meet the following conditions. The complete landfill groundwater data shall be located in its own section of the annual groundwater document and the information we currently supply must be included. Mr Doak also stated that as long as the new report was sent to the CDPHE's Hazardous Materials and Waste Management Division he would not require a separate copy for the Solid Waste Division RFETS files. With these conditions met, this will be the final submittal of the landfill groundwater data in this format. Please note this approved change in reporting for the landfill groundwater for future submittals.

If you have any questions contact Waste Disposal Projects, David L Kidd at extension 5835

J. Laumenberg for
Martin Wheeler
Vice President, Waste Operations

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**1998 GROUNDWATER MONITORING
AT THE
PRESENT SANITARY LANDFILL
ROCKY FLATS ENVIRONMENTAL
TECHNOLOGY SITE**

Final

July 6, 1999

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ACRONYMS AND ABBREVIATIONS

ALF	Action Levels and Standards Framework for Surface Water, Ground Water, and Soils
amsl	above mean sea level
ANOVA	Analysis of Variance
CCR	Colorado Code of Regulations
CDPHE	Colorado Department of Public Health and Environment
cm/sec	centimeters/second
DOE	U S Department of Energy
EPA	U S Environmental Protection Agency
ft	feet
gpm	gallons per minute
IHSS	Individual Hazardous Substance Sites
IM/IRA	Interim Measure/Interim Remedial Action
IMP	Integrated Monitoring Plan
L	liter
LHSU	Lower Hydrostratigraphic Unit
L ₁	Lithium
mg	milligram
µg	microgram
NO ₃ /NO ₂	Nitrate/Nitrite
OU7	Operable Unit 7
pCi	picoCurie
PCOC	Potential Contaminant of Concern
ppm	parts per million
PSITS	Passive Seep Interception Treatment System
PU&D	Property Utilization and Disposal
RCRA	Resource Conservation and Recovery Act
RFCA	Rocky Flats Cleanup Agreement
RFETS	Rocky Flats Environmental Technology Site
RFI/RI	RCRA Facility Investigation/Remedial Investigation
Se	Selenium

ACRONYMS AND ABBREVIATIONS (continued)

TDS	Total Dissolved Solids
TSS	Total Suspended Solids
UHSU	Upper Hydrostratigraphic Unit
VOC	Volatile Organic Compound

1.0 INTRODUCTION

This report presents 1998 data for groundwater quality at the Present Sanitary Landfill (also known as Operable Unit 7) located at the Rocky Flats Environmental Technology Site (RFETS) owned by the U S Department of Energy (DOE). The Present Sanitary Landfill, located in the Buffer Zone north of the Protected Area, occupies approximately 44 acres (encompassing both the landfill and East Landfill Pond) at the western end of the No Name Gulch drainage. It utilizes a surface and subsurface water intercept and diversion system to route surface runoff and upgradient groundwater around the facility, and a leachate collection and treatment system to improve leachate water quality exiting the toe of the landfill near the west end of the East Landfill Pond. The landfill served as a former solid waste disposal facility for RFETS and is one of three interim status units at RFETS that are regulated under the Resource Conservation and Recovery Act (RCRA). The landfill is currently scheduled for capping and final closure around the year 2004.

Throughout 1998, groundwater monitoring was conducted in accordance with the requirements of the Rocky Flats Cleanup Agreement (RFCA), as set forth in the Integrated Monitoring Plan (IMP) (DOE, 1997a), which by agreement with the U S Environmental Protection Agency (EPA) and Colorado Department of Public Health and Environment (CDPHE), supersedes Title 6 of the Colorado Code of Regulations, 6 CCR 1007-2 and 6 CCR 1007-3, as the governing authority for groundwater monitoring at RFETS.

Information compiled for the 1998 Groundwater Monitoring at the Present Sanitary Landfill Report includes a review of historical activities at the Present Sanitary Landfill (Section 2.0), a summary of previous investigations (Section 3.0), the status of the current monitoring program (Section 4.0), the current understanding of the physical characteristics of groundwater flow at the site (Section 5.0), an assessment of groundwater quality (Section 6.0), an update on groundwater intercept system operation (Section 7.0), and general conclusions regarding groundwater quality and the groundwater monitoring program at the landfill (Section 8.0).

2.0 OPERATING HISTORY OF THE PRESENT SANITARY LANDFILL

The Present Sanitary Landfill began operating August 14, 1968, for the disposal of Rocky Flats sanitary waste. However, records indicated that, prior to 1986, some hazardous waste was disposed of at the landfill, therefore, in 1986, the landfill became classified as a RCRA-regulated unit. Disposal of hazardous constituents in the landfill was halted in November of 1986. The landfill remained in operation accepting only sanitary waste until March 1998. At that time, the landfill was placed in contingent closure status because it was nearing capacity, and was voluntarily seeded to stabilize soils and control erosion. All RFETS sanitary waste is currently delivered to an offsite commercial Subtitle D sanitary waste landfill for disposal. The following paragraphs provide a brief historical summary of the landfill.

In September 1973, tritium was detected in leachate draining from the landfill. In response to this detection, a sampling program was initiated to determine the location of the tritium source. In addition, radiation monitoring of waste prior to burial was initiated to prevent further disposal of radioactive material, and interim-response measures were undertaken to control the generation and migration of landfill leachate. Interim-response measures included the construction of two ponds (Ponds No. 1 and No. 2, also known as the West Landfill Pond and East Landfill Pond, respectively) immediately east of the landfill, and the installation of a subsurface leachate-collection system and subsurface intercept system for diverting groundwater around the landfill. Ditches were also constructed to control surface water.

The West Landfill Pond embankment was built approximately 500 feet (ft) east of the 1974 position of the advancing face of the landfill. The East Landfill Pond embankment was constructed approximately 1,000 ft east of the West Landfill Pond embankment. A cutoff wall, set in bedrock, was constructed in the East Landfill Pond embankment to reduce seepage through the embankment foundation. The embankments and ponds were built to collect and evaporate groundwater, surface water, and leachate collected by the subsurface drainage-control system. The pond contains no outlet works other than a spillway which is designed for use during extreme

storm events Groundwater exiting the landfill will discharge to the East Landfill Pond where it either evaporates or is pumped to Pond A-3 via the Pond A-1 bypass for eventual discharge from the Site Subsurface leakage of the pond may also occur, which functions to recharge the unconsolidated deposits below the landfill pond dam and underlying bedrock claystones The amount of leakage is expected to be small based on the low hydraulic conductivity of the underlying bedrock materials

An inner leachate-collection system and outer groundwater-intercept/diversion system were constructed around the west, north, and south perimeters of the landfill The leachate collection system was designed to provide a perimeter drain for the prevention of leachate migration outside the landfill boundary and to reduce water levels within landfill refuse The groundwater-intercept/diversion system was constructed along the outside edge of the leachate collection system to prevent groundwater from entering the landfill area Groundwater diverted from the landfill by the intercept system is, as currently understood, directed eastward around waste materials and discharges either to the East Landfill Pond or No Name Gulch below the East Landfill Pond dam (surface water monitoring locations SW099 and SW100)

Between 1977 and 1981, the leachate-collection trench was buried beneath waste during landfill expansion (DOE, 1996a) The west embankment and West Landfill Pond were removed in 1981, and two slurry walls were constructed, extending from the ends of the north and south groundwater-interceptor ditches These slurry walls range in depth from 10 ft to 25 ft, and were designed to be seated in bedrock

Sometime after the Present Sanitary Landfill went into operation in 1968, excess water from the landfill pond was sprayed onto a ridge south of the East Landfill Pond The sprayed water collected on the roadway and flowed into North Walnut Creek When this misdirected flow was discovered, the spraying activities were moved to an area north of the landfill pond adjacent to an irrigation ditch Because the subsequent spray water then collected in local drainage channels and flowed around the landfill pond to the main drainage, the spraying activities were again moved

The final spray location was an area south of the west end of the landfill pond, excess spray water flowed back into the East Landfill Pond

In 1995, a gravity flow treatment system was constructed to collect contaminated groundwater and leachate flowing from the eastern end of the Present Sanitary Landfill. The Passive Seep Interception and Treatment System (PSITS) became operational in early 1996 and was designed to treat landfill leachate to eliminate F039-listed wastes prior to discharge into the East Landfill Pond. The treatment system was originally composed of a settling basin, bag filters to remove suspended solids, and granular activated carbon to remove organic chemical constituents, but was modified in the fourth quarter of 1998 to allow passive aeration of leachate water. The treated effluent is sampled monthly for VOCs, semivolatile organics, metals, isotopic plutonium, uranium, and americium, gross alpha and beta, and tritium, with results published in the Quarterly Report for the Consolidated Water Treatment Facility and Operable Unit 7 (OU7) Passive Seep Interception System.

Groundwater monitoring was originally instituted in 1989 in accordance with 6 CCR 1007-2 and 6 CCR 1007-3, Subsection 265 90(d). This report addresses monitoring requirements pertaining to RCRA units as specified in the IMP. Monitoring pertaining to RFETS RCRA units prior to 1996 are addressed in the Annual RCRA Groundwater Monitoring Reports (U.S. Department of Energy [DOE], 1990, 1991a, 1992, 1993, 1994, 1995, and 1996b). Subsequent groundwater monitoring activities conducted under the authority of RFCA during calendar years 1996 and 1997 are presented in annual Present Sanitary Landfill Groundwater Monitoring Reports (DOE, 1997b and 1998). The regulations require that the groundwater monitoring program be capable of determining the impact of a facility on the water quality in the uppermost aquifer.

The Annual RCRA Reports for RFETS describe chemical and physical aspects of groundwater (for 1989 through 1995) at the Present Sanitary Landfill (DOE, 1990, 1991a, 1992, 1993, 1994, 1995, and 1996b). The *Phase I RCRA Facility Investigation/Remedial Investigation (RFI/RI) Work Plan for Operable Unit 7 Present Sanitary Landfill* (DOE, 1991b) presents additional

information regarding construction, operation, regulatory history, and site characterization. Work conducted for Phase I included cone-penetrometer testing, soil sampling, and the installation and sampling of additional groundwater monitoring wells.

A closure plan for the Present Sanitary Landfill was developed in the Interim Measure/Interim Remedial Action (IM/IRA) decision document (DOE, 1996a), in accordance with the RFCA (RFCA, 1996) and applicable Colorado hazardous-waste regulations. Due to the Present Sanitary Landfill's position (26) on the Environmental Restoration Ranking, action has been deferred until higher ranked areas are remediated. Post-closure groundwater monitoring of the Present Sanitary Landfill will be performed in accordance with the requirements of the IMP.

3.0 SUMMARY OF PREVIOUS INVESTIGATIONS

Annual RCRA Groundwater Monitoring Reports from 1989 through 1995 and Present Sanitary Landfill Groundwater Monitoring Reports from 1996 and 1997 describe groundwater elevations and flow rates, as well as the results of the groundwater analyses. The sampling and analysis records were maintained in compliance with 6 CCR 1007-3 and 40 CFR 265.94(b). The *Phase I RFI/RI Work Plan for OU7 - Present Sanitary Landfill* (DOE, 1991b) and the Operable Unit 7 Revised Draft IM/IRA Decision Document and Closure Plan (DOE, 1996a) present additional information.

The impact of the Present Sanitary Landfill on groundwater quality has been evaluated in previous Annual RCRA and Landfill Groundwater Monitoring Reports (DOE, 1990, 1991a, 1992, 1993, 1994, 1995, 1996b, 1997b, 1998). In 1992, groundwater from surficial deposits within and around the Present Sanitary Landfill had concentrations of major anions (bicarbonate, chloride, nitrate/nitrite, sulfate), total dissolved solids [TDS], dissolved metals (calcium, chromium, lithium, magnesium, potassium, sodium, and strontium), and radionuclides that were elevated relative to mean background concentrations/activities. Some volatile organic compounds (VOCs) were also detected. The dissolved radionuclides present included americium-241, plutonium-

239/240, uranium-233/234, uranium-238, and radium-226 Throughout 1992, concentrations of dissolved metals and radionuclides were only rarely greater than mean background concentrations

During 1992, VOCs were detected sporadically and infrequently in wells screened in surficial materials of the upper hydrostratigraphic unit (UHSU) In UHSU bedrock, VOCs were detected in groundwater sampled from two wells Methylene chloride, acetone, and toluene were detected once The infrequent occurrence of VOCs in the UHSU bedrock indicated that the Present Sanitary Landfill had not adversely impacted groundwater in UHSU bedrock, even though some contamination of groundwater had occurred in UHSU surficial materials overlying the bedrock

In 1993, the groundwater chemistry at the Present Sanitary Landfill appeared generally consistent with water-quality conditions of 1992 (DOE, 1994) The 1993 statistical comparisons of upgradient versus downgradient UHSU groundwater at the Present Sanitary Landfill indicated statistically significant increases in downgradient concentrations of dissolved metals (calcium, lithium, magnesium, potassium, sodium, and strontium), and major anions (chloride and sulfate) None of the radionuclides or VOCs showed a statistically significant difference in upgradient versus downgradient activities or concentrations, respectively Radionuclide activities and concentrations of VOCs, metals, and anions were notably highest within the landfill and in the area adjacent to Individual Hazardous Substance Sites (IHSSs) located southeast of the landfill, relative to other areas in the vicinity of the Present Sanitary Landfill In groundwater from UHSU bedrock beneath and downgradient of the landfill, VOCs were detected infrequently, but radionuclides were present at activities higher than mean background

Analysis of 1994 data by analysis of variance (ANOVA) indicated statistically significant differences in upgradient versus downgradient groundwater quality in the total UHSU for radionuclides (uranium-233/234 and uranium-238), dissolved metals (calcium, lithium, magnesium, sodium, and strontium), anions (carbonate, chloride, fluoride, and sulfate), and TDS (DOE, 1995) In the UHSU bedrock, there were statistically significant differences in upgradient

versus downgradient groundwater quality for dissolved metals (calcium, lithium, magnesium, sodium, and strontium), anions (bicarbonate, chloride, and sulfate), and TDS. All VOCs had less than 50-percent quantifiable results.

For 1995, statistical comparisons of upgradient versus downgradient UHSU groundwater at the Present Sanitary Landfill indicated statistically significant increases in levels of dissolved barium, calcium, lithium, magnesium, silicon, sodium, strontium, uranium-233/234, and gross beta, as well as bicarbonate, chloride, sulfate, and TDS. Activities of total americium-241, plutonium-239/240, and tritium did not show statistically significant difference between upgradient and downgradient UHSU groundwater. All VOCs were detected in fewer than 50 percent of the samples, so these analytes were not statistically evaluated.

Analyses of the 1996 data tend to confirm the results of previous sampling (DOE, 1997b). Approved well abandonments and deactivations, combined with an inadequate volume of water for sampling in the downgradient wells, prevented statistical analysis for many analytes during these years. Detected analytes and concentration ranges were generally consistent with those detected in prior years. Barium, calcium, chromium, lithium, magnesium, potassium, selenium, and sodium were detected in downgradient wells at levels below mean background concentrations. Nitrate and tritium were evaluated using ANOVA techniques and were determined to be statistically similar in upgradient versus downgradient samples. As in prior investigations, there was no indication of volatile organic contamination in downgradient wells.

For 1997, statistical analyses of groundwater data were again prevented by an insufficient number of analyses, as explained above for the 1996 data. Fluoride, sulfate, TDS, barium, copper, iron, lithium, manganese, selenium, strontium, nitrate, and zinc appeared to be elevated in one or more downgradient versus upgradient wells. Tritium and certain VOCs were detected in upgradient wells at concentrations that exceeded the downgradient well concentrations. The trends of potential contaminants detected in the downgradient wells did not, however, appear to be increasing with time, resulting in no reportable excursions for 1997 (DOE, 1998).

Results of hydrogeologic investigations of the Present Sanitary Landfill suggest that the groundwater-intercept system may not completely isolate the landfill from the surrounding groundwater. Hydraulic assessments for specific areas on the west, north, and south sides of the groundwater-intercept system indicate that groundwater may flow into the landfill on the north side where the leachate collection system was not completely keyed into bedrock (DOE, 1996a). In addition, previous reports indicate that the leachate collection trench was buried beneath waste during landfill expansion (DOE, 1996a). Therefore, the clay cutoff wall no longer extends to the surface of the landfill, this would allow groundwater to flow across the clay cutoff wall if the water table were to rise sufficiently. Landfill wastes do not extend to the surface-water interceptor ditch.

An evaluation of groundwater-elevation data for 1991 through 1995 and the hydrologic evaluation data for the OU7 IM/IRA indicate that previous conclusions made regarding the impact of the leachate/groundwater-intercept system are still valid. These conclusions are

- The groundwater-intercept system diverts groundwater away from the landfill and is most effective in diverting flow on the west and south sides.
- The clay barrier is an effective barrier to groundwater flow in the landfill along the west but it may not be completely keyed into bedrock on the northwest side. This may allow groundwater to enter the north side of the landfill.

4.0 CURRENT GROUNDWATER MONITORING PROGRAM

The Present Sanitary Landfill at RFETS currently operates under CDPHE and EPA guidelines for solid waste disposal sites and facilities. The current groundwater monitoring program was instituted in accordance with the Rocky Flats Cleanup Agreement (RFCA, 1996), as further defined for RCRA units in the IMP. RCRA groundwater monitoring is conducted to detect

potential excursions of contamination beyond an established point of compliance based on comparisons of upgradient to downgradient groundwater quality. Under the IMP, if significant impacts to groundwater quality are detected in downgradient RCRA wells and contaminant concentrations are observed to increase with time, then the results are reported to EPA and CDPHE and an investigation into possible causes is initiated. Special attention is given to groundwater contaminants listed in the Action Levels and Standards Framework for Surface Water, Ground Water, and Soils (ALF) document (RFCA, 1996, Attachment 5), which if exceeded, trigger an evaluation, remedial action, and/or management action. Non-ALF constituents, such as the major cation metals sodium, potassium, calcium, and magnesium, are not reportable under RFCA, and are, therefore, not emphasized in this report. Figure 4-1 illustrates the location of existing and abandoned monitoring wells in relationship to relevant surface and subsurface features at the Present Sanitary Landfill.

Recent changes to the site groundwater monitoring program are outlined in the IMP (DOE, 1997a). This plan specifies the monitoring and reporting requirements for the Present Sanitary Landfill, including well identification, sampling frequency, analytical requirements, and reporting. Operating procedures are used to specify techniques for sample collection, preservation, shipment, and chain-of-custody control.

For the reporting period, upgradient wells 5887, 70193, 70393, and 70493, and downgradient wells 4087, 52894, and B206989, were sampled on a quarterly basis (January-March, April-June, July-September, and October-December) to determine compliance with RFCA, as set forth in the IMP. Table 4-1 summarizes sampling activities and shows the hydrostratigraphic unit monitored and material screened for all wells sampled in and near the Present Sanitary Landfill in 1998. The limited number and position of these wells makes it infeasible to construct potentiometric surface maps and concentration isopleth maps, thus current and future reports will only assess impacts to or from the landfill at the upgradient and downgradient landfill boundaries.

Table 4-1
Well Completion Information and Sampling Summary for Present Sanitary Landfill Wells

Well	Hydro-Stratigraphic Unit	Screened Material	Quarterly Sampling Summary			
			Q1	Q2	Q3	Q4
Upgradient Wells						
5887	UPPER	ALLUVIUM	V,W,N,M,T,U	V,W,N,M,T,U	V,W,N,M,T,U	V,W,N,M,T,U
70193	UPPER	BEDROCK	V,W,N,M,T,U	V,W,N,M,T,U	V,W,N,M,T,U	V,W,N,M,T,U
70393	UPPER	ALLUVIUM	V,W,N,M,T,U	V,W,N,M,T,U	V,W,N,M,T,U	V,W,N,M,T,U
70493	UPPER	BEDROCK	V,W,N,M,T,U	V,W,N,M,T,U	V,W,N,M,T,U	V,W,N,M,T,U
Downgradient Wells						
4087	UPPER	ALLUVIUM	V,W,N,M,T,U	V,W,N,M,T,U	V	Dry
52894	UPPER	ALLUVIUM	Dry	V,N,M,T,U	V,W,N,M,T,U	Dry
B206989	UPPER	BEDROCK	V,N,M,T	V,N,T,U	V,N,T	V,M

V = Volatile organic compounds
W = Water quality parameters
N = Nitrate/Nitrite
M = Metals
T = Tritium
U = Uranium isotopes

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Groundwater elevations for active wells were measured quarterly as directed in the Integrated Monitoring Plan (DOE, 1998). Quarterly groundwater samples were analyzed for radionuclides (tritium [liquid scintillation counting] and uranium isotopes [alpha spectroscopy]), volatile organic compounds (VOCs [EPA 524 2]), metals (CLP-SOW), and major anions (total dissolved solids [EPA 160 1], sulfate [SW846], fluoride [EPA 300 0], and nitrate/nitrite [EPA 353 1]), in accordance with Appendix E-2 of the IMP. The absence of complete analyte suites in most quarters for the downgradient wells listed in Table 4-1 is caused by sample volume limitations (also see dry and lacked water [LW] codes in Figures 6-1 through 6-4) imposed by slow recharge and/or thin saturation conditions. The alluvium and weathered bedrock at these localities are frequently dry or thinly saturated partly because the dam for the East Landfill Pond acts as a barrier to alluvial groundwater flow from the west, and partly because evapotranspiration demands consume much of the available shallow groundwater in the gulch during the summer months. For this reason, it is normally not possible to collect complete sample sets for each quarterly sampling period.

Some historical potential contaminants-of-concern (PCOC), such as semi-VOCs, were not included in the sampling program as a result of PCOC screening conducted during the IMP data quality objective process and acceptance of the plan by EPA and CDPHE. Table 4-2 lists the constituents monitored for wells in and near the Present Sanitary Landfill. The records of analyses and evaluations are currently maintained in compliance with 6 CCR 1007-2.

5.0 PHYSICAL CHARACTERISTICS OF THE GROUNDWATER SYSTEM

5.1 Description of the "Uppermost Aquifer"

The "uppermost aquifer" is equivalent to the UHSU as described in recent RFETS reports (EG&G, 1995a, 1995b, and 1995c). In the area of the Present Sanitary Landfill, the UHSU is composed of unconsolidated surficial deposits and weathered bedrock. The unconsolidated deposits consist of Rocky Flats Alluvium, colluvium, and valley-fill alluvium. The Rocky Flats

Table 4-2
Chemical Constituents Monitored at the Present Sanitary Landfill

Volatile Organic Compounds	Volatile Organic Compounds	Metals
1,1,1,2-Tetrachloroethane	cis-1,3-Dichloropropene	Calcium
1,1,1-Trichloroethane	Dibromochloromethane	Chromium
1,1,2,2-Tetrachloroethane	Dibromomethane	Cobalt
1,1,2-Trichloroethane	Dichlorodifluoromethane	Copper
1,1-Dichloroethane	Ethylbenzene	Iron
1,1-Dichloroethene	Hexachlorobutadiene	Lead
1,1-Dichloropropene	Isopropylbenzene	Lithium
1,2,3-Trichlorobenzene	m/p-Xylene	Magnesium
1,2,3-Trichloropropane	Methylene Chloride	Manganese
1,2,4-Trichlorobenzene	Naphthalene	Mercury
1,2,4-Trimethylbenzene	n-Butylbenzene	Molybdenum
1,2-Dibromo-3-chloropropane	n-Propylbenzene	Nickel
1,2-Dibromoethane	o-Chlorotoluene	Potassium
1,2-Dichlorobenzene	o-Xylene	Selenium
1,2-Dichloroethane	p-Chlorotoluene	Silver
1,2-Dichloropropane	p-Isopropyltoluene	Sodium
1,3,5-Trimethylbenzene	sec-Butylbenzene	Strontium
1,3-Dichlorobenzene	Styrene	Thallium
1,3-Dichloropropane	tert-Butylbenzene	Tin
1,4-Dichlorobenzene	Tetrachloroethene	Vanadium
2,2-Dichloropropane	Toluene	Zinc
Benzene	trans-1,2-Dichloroethene	Water Quality Parameters
Bromobenzene	trans-1,3-Dichloropropene	Fluoride
Bromochloromethane	Trichloroethene	Nitrate/Nitrite
Bromodichloromethane	Trichlorofluoromethane	Sulfate
Bromoform	Vinyl Chloride	Total Dissolved Solids
Bromomethane	Metals	Radionuclides
Carbon Tetrachloride	Aluminum	Tritium
Chlorobenzene	Antimony	Uranium-233/234
Chloroethane	Arsenic	Uranium-235
Chloroform	Barium	Uranium-238
Chloromethane	Beryllium	
cis-1,2-Dichloroethene	Cadmium	

Alluvium and artificial fill (landfilled wastes and soil-cover materials) are present upgradient of and within the landfill, colluvium and valley-fill alluvium are present downgradient of the Present Sanitary Landfill. Weathered claystones and weathered sandstones that are in direct hydraulic communication with the overlying surficial deposits, are also considered part of the uppermost "aquifer". The weathered claystones are generally more permeable than unweathered bedrock. Unweathered claystones are not considered as part of the uppermost aquifer, rather they are included as part of the lower hydrostratigraphic unit (LHSU). Bedrock wells were assigned to a hydrostratigraphic unit based on geochemical data from the well, hydraulic conductivity measurements (where available), and information from borehole logs. The Rocky Flats Alluvium is 25 to 30 feet thick on the northwest, west, and southwest sides of the landfill, and 10 to 15 feet thick on the divides north and south of the landfill pond. Colluvium is 1 to 5 feet thick on the slopes around the East Landfill Pond and below the dam. The valley-fill alluvium ranges in thickness from 3 to 8 feet in the landfill area and becomes thicker downstream to the east. The thickness of artificial fill increases from about 5 feet at the perimeter of the landfill to about 45 feet near the centerline of the valley (DOE, 1996a). Weathered bedrock material thicknesses vary considerably in the vicinity of the landfill, ranging from approximately 4 to 35 feet, as indicated by weathered bedrock isopach mapping of the area (EG&G, 1995a).

Average depth to groundwater ranges from 5 to 15 feet in surficial deposits (excluding artificial fill) (EG&G, 1995b). Within the landfill, groundwater is found at approximately 20 feet at the western end, 16 feet in the middle, and 33 feet at the eastern end (DOE, 1996a). The depth to groundwater in weathered bedrock is generally deeper than those of the overlying surficial deposits due to the presence of steep downward vertical gradients that are prevalent in bedrock materials. Saturated thickness of UHSU deposits vary widely across the landfill, with the thickest sections found in the Rocky Flats Alluvium at the western end, and thinnest sections found in colluvial and valley fill deposits east of the East Landfill Pond and in the Rocky Flats Alluvium along the south divide. EG&G (1995b) reported saturated thicknesses ranging from 0 to 20 feet for surficial deposits at the landfill.

Geometric mean hydraulic conductivities calculated from field tests of the different geologic units are given in Section 5.4

5.2 Potentiometric Surface

Groundwater is present in surficial deposits and artificial fill, and in bedrock sandstones and claystones in the area of the Present Sanitary Landfill. Groundwater flow patterns in the UHSU tend to mimic the surface topography. Within landfill wastes, groundwater flows toward the center of the landfill, then flows eastward toward the East Landfill Pond. Outside the landfill, groundwater generally flows eastward within saturated UHSU surficial deposits, except near stream valleys, which disrupt UHSU flow patterns and function as drains for UHSU groundwater. For example, near the East Landfill Pond, groundwater flows from the north, west, and south toward the pond because of its topographically low position in the No Name Gulch drainage. Groundwater entering the pond will mix with surface water and be discharged by evaporation, pumped to Pond A-3, and, to a limited extent, percolate downward into underlying bedrock materials or laterally through the dam. Any groundwater seeping past the dam into the lower drainage would flow eastward along the stream course until discharged via evapotranspiration, surface water, or as lateral subsurface flow at the Indiana Street east boundary.

Groundwater elevations in monitoring wells are measured at least quarterly. Water levels in the surficial deposits of the UHSU are characterized by seasonal variations of as much as 10 feet. The water-table elevation is generally lowest in late winter and early spring prior to recharge by snowmelt, and highest during June and July. Groundwater elevations in the weathered bedrock of the UHSU typically show seasonal variations of as much as 15 feet (DOE, 1992). Appendix A lists the results of depth to water measurements for wells monitored during 1998.

5.3 Vertical Hydraulic Gradients

The vertical hydraulic gradient is the quotient of the differences in water levels measured

concurrently in two adjacent wells with different screened intervals, and the vertical distance between the two measuring points, which are specified here as the midpoint of each screened interval. Vertical hydraulic gradient calculations provide a means to evaluate whether groundwater flow has a potential for movement either downward or upward through geologic media.

Most landfill well pairs have been abandoned or deactivated in recent years in preparation for landfill closure. Consequently, current water level data is unavailable for calculation of vertical gradients. The results of historical vertical hydraulic gradient calculations at 8 landfill monitoring well pairs (70093/70193, 70193/70293, 70493/70593, 70693/70893, 72393/72093, 1086/0986, 0786/0886, and B206989/B207089) monitored through 1995 (DOE, 1996b) provide information relevant to understanding groundwater conditions at the landfill. The calculated vertical hydraulic gradients for all well pairs, except 72393/72093, indicate a downward (recharging) component of flow, with values ranging from 0.022 to 1.099 ft/ft. The significance of downward gradients at well pairs 0786/0886 and B206989/B207089, located near the bottom of No Name Gulch, are, however, potentially invalid considering that the water levels in the bedrock wells at these locations recharge slowly and never fully recover between sampling episodes. At well pair 72393/72093, situated within the center of the landfill, groundwater has an upward (discharging) vertical gradient ranging from 0.020 to 0.026 ft/ft. Data from all well pairs indicate that vertical hydraulic gradients have generally remained constant over time. This condition may exist because disturbances to the landfill hydrologic system have been minimal in recent years. In addition, groundwater flow within the deeper portions of the UHSU and LHSU bedrock is relatively insensitive to fluctuations in seasonal water levels and other short-term transient effects because of the prevalent low permeability character of bedrock materials.

5.4 Average Linear Groundwater-Flow Velocities

The average linear groundwater-flow velocity has historically been calculated for three flow-paths in UHSU surficial deposits and three flow-paths in UHSU bedrock in the vicinity of the Present

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Sanitary Landfill (DOE, 1996b) Most of the well pairs were deactivated in 1995 in preparation for landfill closure. However, the variables used in calculating flow velocities (hydraulic conductivity, porosity, and hydraulic gradient) have remained effectively constant over time. Hence, the following discussion excerpted from the 1995 RCRA Groundwater Monitoring report is considered indicative of current conditions in the Present Sanitary Landfill.

Migration rates for conservative, dissolved constituents approximate the average linear groundwater-flow velocity, however, attenuated, volatile, biodegradable, or redox-sensitive species can exhibit migration rates much less than the average linear groundwater-flow velocity. The values of hydraulic conductivity used for surficial deposits and bedrock of the UHSU are the geometric means of hydraulic-conductivity values for each unit at the Present Sanitary Landfill, and include results of historic slug tests (DOE, 1994). Values of hydraulic conductivity used for flow velocity calculations are 1.1×10^{-4} centimeters/second (cm/sec) for surficial deposits (including landfill wastes) and 5.3×10^{-7} cm/sec UHSU bedrock materials. The assumed effective porosity for all units is 0.1 (DOE, 1991b).

Using these data, the calculated average linear groundwater-flow velocities in fill materials range from approximately 1 foot per year at the west end of the landfill to approximately 160 feet per year at the advancing eastern face of the landfill. Calculated average linear groundwater-flow velocities in UHSU bedrock at the Present Sanitary Landfill ranged from approximately 0.20 feet to 0.22 feet per year beneath the landfill, to approximately 0.07 feet to 0.41 feet per year downgradient of the landfill (DOE, 1996b). The calculated average linear groundwater-flow velocities for UHSU bedrock in 1995 were similar to those reported in the 1994 Annual RCRA Groundwater Monitoring Report (DOE, 1995).

6.0 GROUNDWATER QUALITY AT THE PRESENT SANITARY LANDFILL

The assessment of groundwater chemistry at the Present Sanitary Landfill includes an evaluation of the spatial distribution of groundwater constituents in and around the landfill, and a statistical

evaluation of the chemistry of downgradient groundwater with respect to upgradient groundwater, as specified in 6 CCR 1007-2 and the IMP. Statistical comparisons between downgradient and upgradient groundwater data were made using the methodology described in the *1995 Annual RCRA Groundwater Monitoring Report* (DOE, 1996b).

Compared to the 1997 well data set, the majority of analytes had sufficient data to perform statistical analyses for 1998 largely resulting from a change from semi-annual to quarterly sampling. Figures 6-1 through 6-4 depict the analytical results for each well in individual box-plots. To show as much data as possible without overcrowding, box-plots for metals include only those analytes for which the mean value was greater in downgradient wells than in upgradient wells. Box-plots for VOCs include all detected compounds for upgradient and downgradient wells. All data for radionuclides and water quality parameters are presented. Appendix B contains the analytical results for groundwater samples collected during 1998.

6.1 Spatial Distribution of Groundwater Constituents

6.1.1 Upgradient Wells

Currently, four wells (5887, 70193, 70393, and 70493) monitor groundwater chemistry in the UHSU immediately upgradient of the Present Sanitary Landfill. Wells 5887 and 70393 are completed in UHSU alluvial materials and wells 70193 and 70493 are completed in UHSU bedrock. All four wells yielded complete quarterly sample sets for a total of 16 upgradient samples per analyte. The fourth quarter VOC results for wells 5887 and 70393 are flagged with an "R" data validation qualifier indicating that these results have been rejected and are not reliable.

As shown in Figure 6-1, concentrations of water quality parameters fall within 0.07 to 0.92 milligrams per liter (mg/L) for fluoride, 0.05 to 5.8 mg/L for nitrate/nitrite, 13 to 48.4 mg/L for sulfate, and 120 to 230 mg/L for TDS. These concentrations occur within the range of

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background concentrations reported for these analytes in the *1993 Background Geochemical Characterization Report* (EG&G, 1993). A similar situation exists for all of the metal and radionuclide analytes detected in these wells (see Figures 6-2 and 6-3, respectively). Except for the major cations (calcium, magnesium, sodium, potassium, and strontium), the concentrations of most metal analytes are reported below the detection limit or as a detectable contaminant in laboratory blank samples ("B" qualified data). Tritium was not detected in any of the upgradient samples, and the uranium isotopes U-233/234, U-235, and U-238, were essentially detected in only two wells (70393 and 70493).

Alluvial well 70393 yielded consistent detections of five chlorinated VOCs, including TCE (24 µg/L maximum), PCE (8 µg/L maximum), carbon tetrachloride (4 µg/L maximum), 1,1,1-TCA (38 µg/L maximum), and 1,1-DCE (20 µg/L maximum), and single detections of methylene chloride (3 µg/L) and cis-1,2-DCE (0.5 µg/L). Weathered bedrock well 70493, paired with well 70393, contained generally lower concentrations and less consistent detections of the type of VOCs found in the overlying alluvium. VOCs found in this well included methylene chloride (7 µg/L maximum), TCE (1 µg/L maximum), PCE (4 µg/L maximum), 1,1,1-TCA (0.8 µg/L maximum), and a single detection of 1,1,1,2-tetrachloroethane (4 µg/L). Alluvial well 5887 contained single detections of methylene chloride (6 µg/L) and TCE (0.7 µg/L) while weathered bedrock well 70193 contained methylene chloride (19 µg/L maximum) and single detection of PCE (0.6 µg/L). These results are generally consistent with the results of previous monitoring (DOE, 1998), which determined that the Property Utilization and Disposal (PU&D) Yard was the source of this contamination. Results for all other VOC constituents monitored in upgradient wells were below detection.

6.1.2 Downgradient Wells

Three wells located east of the East Landfill Pond embankment are used to monitor the chemistry of downgradient groundwater in the UHSU (wells 4087, 52894, and B206989). Well B206989 monitors groundwater in the UHSU bedrock and wells 4087 and 52894 monitor the quality of

alluvial groundwater All of the well locations are consistent with 6 CCR 1007-2, which allows alternate placement of monitoring wells downgradient of an interim-status facility where existing physical obstacles prevent installation of wells at the boundary

Downgradient groundwater quality monitored at wells 4087, 52894, and B206989 appear to show that concentrations of fluoride, nitrate/nitrite, sulfate, total dissolved solids, arsenic, cadmium, chromium, lithium, manganese, selenium, strontium, and zinc exceed upgradient concentrations reported for upgradient wells 5887, 70193, 70393, and 70493 (Figures 6-1 and 6-2) Elevated concentrations of the non-hazardous metals sodium, potassium, calcium, and magnesium were also detected in downgradient wells, but have no ALF groundwater action levels and, consequently, are not shown in Figure 6-2 Aluminum, cobalt, molybdenum and nickel, initially identified as potentially exceeding upgradient concentrations in Figure 6-2, were found to have no statistically significant differences (at the 1-percent significance level) in upgradient versus downgradient groundwater quality The uranium isotopes U-233/234, U-235, and U-238, presented in Figure 6-3, also appear to have elevated activity-concentrations in downgradient wells compared to upgradient wells Tritium was reported as being undetected in all upgradient and downgradient wells All other ALF groundwater constituents in downgradient groundwater, including VOCs, were detected at or below upgradient concentration levels

Trend plots of analytes in downgradient wells that exceed upgradient concentrations are presented in Appendix C per the requirements of the IMP Concentration trends for analytes with three or more data points tend to be somewhat erratic, but are generally flat or declining, and therefore indicate that landfill groundwater is not currently migrating eastward at increased concentrations past the East Landfill dam Data sets consisting of one or two data points for some analytes are insufficient for discerning trends and can not be interpreted without additional data These trends will be reevaluated as more data becomes available from the groundwater monitoring program

Assuming that groundwater seepage past the dam is appreciable enough to influence downgradient groundwater quality, the elevated concentrations of inorganic analytes in downgradient

groundwater can be explained by the evaporative concentration of solutes in pond water in combination with other factors, such as mineral build-up in soils resulting from seasonal desaturation of valley-fill alluvial materials and contributions of more highly mineralized groundwater from the underlying LHSU. Analysis of analyte trends showing concentration increases must account for these conditions in order to differentiate between natural and anthropogenic influences. On the other hand, groundwater VOC contributions to pond water will tend to be lost by volatilization before reaching the downgradient wells.

The elevated concentrations of certain inorganic constituents, specifically nitrate/nitrite (NO_3/NO_2), lithium (Li), and selenium (Se) in well B206989, probably indicate the presence of a non-landfill contaminant source area that influences downgradient groundwater quality below the landfill pond. This interpretation is supported by the historically low concentration of these analytes in landfill leachate (SW097, mean values = 0.3 mg/L NO_3/NO_2 , 40 $\mu\text{g/L}$ Li , and 2 $\mu\text{g/L}$ Se) and landfill pond water (SW098, mean values = 0.093 mg/L NO_3/NO_2 and 77 $\mu\text{g/L}$ Li) (DOE, 1996a, Tables 2-2 and 2-3), and elevated concentration of nitrate/nitrite (mean = 143.5 mg/L), lithium (199 $\mu\text{g/L}$) and selenium (504 $\mu\text{g/L}$) in samples from UHSU bedrock well B206889, located to the south and upgradient of well B206989. Potential source areas for these contaminants are currently unknown. Regardless of the source of these contaminants, their absence at high concentrations in landfill groundwater and surface water indicate the presence of potential non-landfill interferences in interpreting downgradient weathered bedrock groundwater quality.

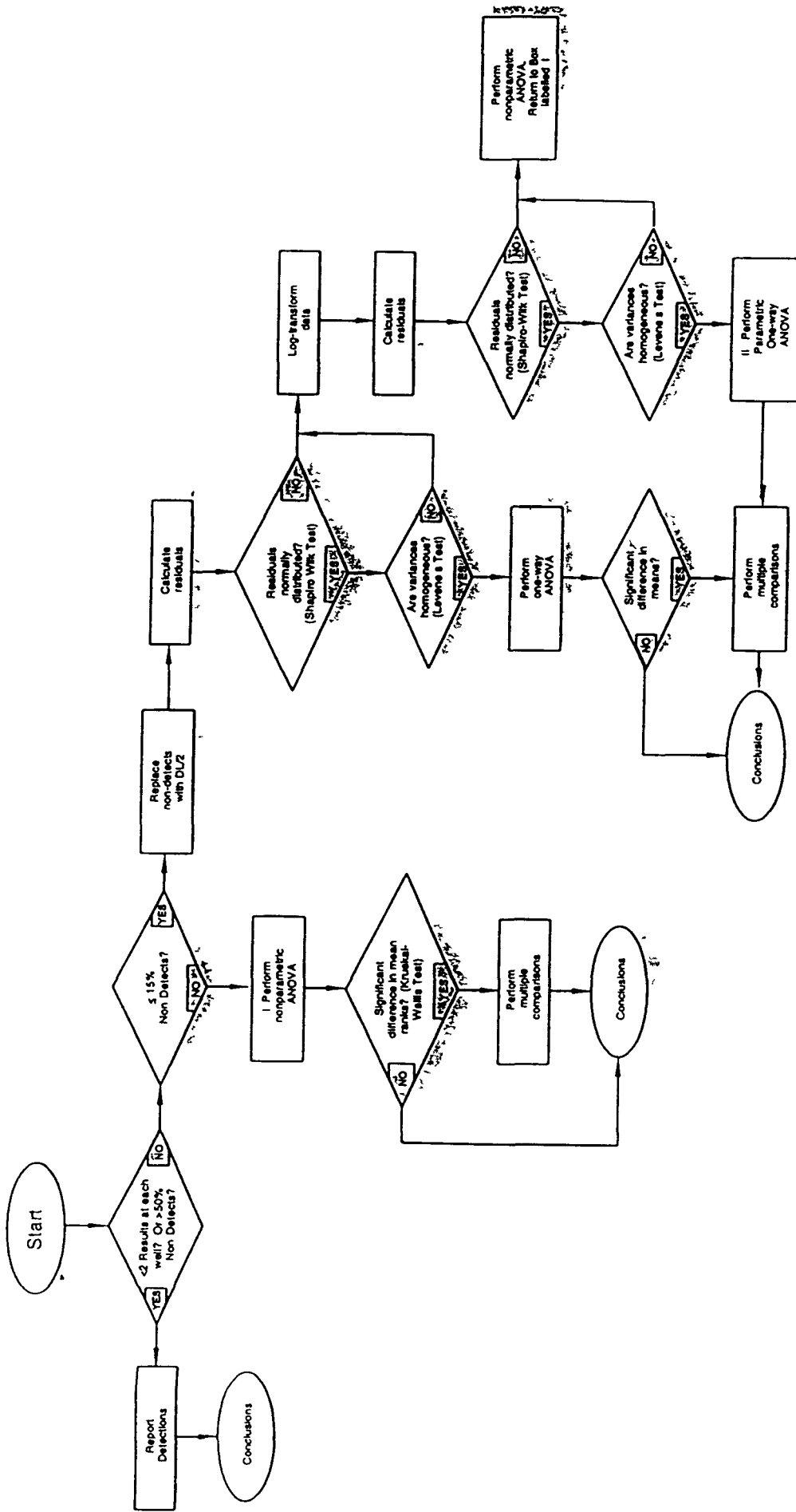
6.2 Statistical Evaluation of Groundwater Constituents

Where possible, analytical data for groundwater monitored upgradient of the Present Sanitary Landfill were compared statistically to analytical data for groundwater sampled from compliance-boundary wells located downgradient of the Present Sanitary Landfill. Results of these comparisons were used to evaluate potential contaminant releases from the regulated unit into the uppermost "aquifer". The comparisons between upgradient and downgradient groundwater

quality were made using the statistical methodology discussed in the 1995 Annual RCRA Report (DOE, 1996b) and illustrated by the statistical methods flow chart presented in Figure 6-5. Table 6-1 presents a sampling and detection summary for each groundwater analyte monitored during 1998. Statistical comparisons were not performed for analytes with less than 50-percent quantifiable results or for analytes with less than two quantifiable results. For analytes involving nonparametric analysis, the minimum sample volume requirement of at least two quantifiable results per group was increased to four as recommended by EPA guidance (EPA, 1992). A sufficient number of samples were collected from upgradient and downgradient well groups to perform statistical comparisons for all analytes with more than 50-percent quantifiable results, except sulfate and total dissolved solids (3 downgradient samples each). Data for volatile organic compounds (except methylene chloride), nine trace metals (arsenic, beryllium, cobalt, lead, mercury, silver, thallium, tin, and vanadium), tritium, and uranium-235 met the sample volume criteria, but non-detections exceeded 50 percent of the data sets, so it was necessary to exclude these compounds from statistical evaluation. Conclusions concerning these analytes are described following the discussion of statistical comparisons.

For analytes with greater than 50-percent quantifiable results, parametric ANOVA or nonparametric Wilcoxon Rank-Sum testing was performed, depending on the percentage of non-detections present in the sample groups and sample distribution characteristics. All UHSU results (alluvial and bedrock) were grouped by analyte into upgradient and downgradient data sets to simplify analyses and provide adequate data to perform statistical testing. This approach is justifiable because all downgradient wells are closely located in a well-defined, narrow drainage way that defines the sole groundwater flow path leading from the landfill. The Wilcoxon Rank-Sum test (also known as the Mann-Whitney U test) was selected to perform nonparametric comparisons in place of the Kruskal-Wallis test based on EPA guidance for statistical evaluations involving two data groups (EPA, 1992).

Table 6-2 summarizes the results of statistical comparisons for the upgradient and downgradient



Rocky Flats Environmental Technology Site

Figure 6-5

Method for Performing Statistical Evaluations

RMRS
 Rocky Mountain Remediation Services L L C
 Rocky Flats Environmental Technology Site
 P O Box 484
 Golden CO 80402 0484

Table 6-1 Groundwater Sample and Detection Summary for Present Sanitary Landfill Wells

Parameter	Number of Samples			Number of Samples			Number of Samples			Number of Samples		
	16	3	19	16	3	19	16	3	19	16	3	19
Water Quality (mg/L)												
Fluoride	16	3	19	16	3	19	100 0	100 0	100 0	0 0		
Nitrate/Nitrite	16	6	22	15	5	20	93 8	83 3	90 9	9 1		
Sulfate	16	3	19	16	3	19	100 0	100 0	100 0	0 0		
Total Dissolved Solids	16	3	19	16	3	19	100 0	100 0	100 0	0 0		
Metals (ug/L)												
Aluminum	16	6	22	15	5	20	93 8	83 3	90 9	9 1		
Antimony	16	6	22	9	3	12	56 3	50 0	54 5	45 5		
Arsenic	16	6	22	1	4	5	6 3	66 7	22 7	77 3		
Barium	16	6	22	16	6	22	100 0	100 0	100 0	0 0		
Beryllium	16	6	22	2	1	3	12 5	16 7	13 6	86 4		
Cadmium	16	6	22	8	5	13	50 0	83 3	59 1	40 9		
Calcium	16	6	22	16	6	22	100 0	100 0	100 0	0 0		
Chromium	16	6	22	12	3	15	75 0	50 0	68 2	31 8		
Cobalt	16	6	22	2	3	5	12 5	50 0	22 7	77 3		
Copper	16	6	22	13	6	19	81 3	100 0	86 4	13 6		
Iron	16	6	22	9	3	12	56 3	50 0	54 5	45 5		
Lead	16	6	22	6	2	8	37 5	33 3	36 4	63 6		
Lithium	16	6	22	16	6	22	100 0	100 0	100 0	0 0		
Magnesium	16	6	22	16	6	22	100 0	100 0	100 0	0 0		
Manganese	16	6	22	15	4	19	93 8	66 7	86 4	13 6		
Mercury	16	6	22	1	0	1	6 3	0 0	4 5	95 5		
Molybdenum	16	6	22	8	6	14	50 0	100 0	63 6	36 4		
Nickel	16	6	22	12	6	18	75 0	100 0	81 8	18 2		
Potassium	16	6	22	16	6	22	100 0	100 0	100 0	0 0		
Selenium	16	6	22	9	6	15	56 3	100 0	68 2	31 8		
Silver	16	6	22	4	1	5	25 0	16 7	22 7	77 3		
Sodium	16	6	22	16	6	22	100 0	100 0	100 0	0 0		
Strontium	16	6	22	16	6	22	100 0	100 0	100 0	0 0		
Thallium	16	6	22	6	2	8	37 5	33 3	36 4	63 6		
Tin	16	6	22	1	2	3	6 3	33 3	13 6	86 4		
Vanadium	16	6	22	4	2	6	25 0	33 3	27 3	72 7		
Zinc	16	6	22	16	6	22	100 0	100 0	100 0	0 0		
Radionuclides (pCi/L)												
Tritium	16	7	23	4	2	6	25 0	28 6	26 1	73 9		
U-233/234	16	5	21	7	5	12	43 8	100 0	57 1	42 9		
U-235	16	5	21	3	5	8	18 8	100 0	38 1	61 9		
U-238	16	5	21	8	5	13	50 0	100 0	61 9	38 1		
Volatile Organic Compounds (ug/L)												
1,1,1,2-Tetrachloroethane	16	9	25	1	0	1	6 3	0 0	4 0	96 0		
1,1,1-Trichloroethane	16	9	25	6	0	6	37 5	0 0	24 0	76 0		
1,1,2,2-Tetrachloroethane	16	9	25	0	0	0	0 0	0 0	0 0	100 0		
1,1,2-Trichloroethane	16	9	25	0	0	0	0 0	0 0	0 0	100 0		
1,1-Dichloroethane	16	9	25	0	0	0	0 0	0 0	0 0	100 0		
1,1-Dichloroethene	16	9	25	4	0	4	25 0	0 0	16 0	84 0		
1,1-Dichloropropene	16	9	25	0	0	0	0 0	0 0	0 0	100 0		
1,2,3-Trichlorobenzene	16	9	25	0	0	0	0 0	0 0	0 0	100 0		
1,2,3-Trichloropropane	16	9	25	0	0	0	0 0	0 0	0 0	100 0		
1,2,4-Trichlorobenzene	16	9	25	0	0	0	0 0	0 0	0 0	100 0		
1,2,4-Trimethylbenzene	16	9	25	0	0	0	0 0	0 0	0 0	100 0		

Table 6-1 Groundwater Sample and Detection Summary for Present Sanitary Landfill Wells

Chemical Name	1998 Sample Data			1999 Sample Data			1998 Detection Data			1999 Detection Data
	Wells	Depth (ft)	Sample Date	Wells	Depth (ft)	Sample Date	Wells	Depth (ft)	Sample Date	
1,2-Dibromo-3-chloropropane	16	9	25	0	0	0	00	00	00	100 0
1,2-Dibromoethane	16	9	25	0	0	0	00	00	00	100 0
1,2-Dichlorobenzene	16	9	25	0	0	0	00	00	00	100 0
1,2-Dichloroethane	16	9	25	0	0	0	00	00	00	100 0
1,2-Dichloropropane	16	9	25	0	0	0	00	00	00	100 0
1,3,5-Trimethylbenzene	16	9	25	0	0	0	00	00	00	100 0
1,3-Dichlorobenzene	16	9	25	0	0	0	00	00	00	100 0
1,3-Dichloropropane	16	9	25	0	0	0	00	00	00	100 0
1,4-Dichlorobenzene	16	9	25	0	0	0	00	00	00	100 0
2,2-Dichloropropane	16	9	25	0	0	0	00	00	00	100 0
Benzene	16	9	25	0	0	0	00	00	00	100 0
Bromobenzene	16	9	25	0	0	0	00	00	00	100 0
Bromochloromethane	16	9	25	0	0	0	00	00	00	100 0
Bromodichloromethane	16	9	25	0	0	0	00	00	00	100 0
Bromoform	16	9	25	0	0	0	00	00	00	100 0
Bromomethane	16	9	25	0	0	0	00	00	00	100 0
Carbon Tetrachloride	16	9	25	4	0	4	25 0	00	16 0	84 0
Chlorobenzene	16	9	25	0	0	0	00	00	00	100 0
Chloroethane	16	9	25	0	0	0	00	00	00	100 0
Chloroform	16	9	25	0	0	0	00	00	00	100 0
Chloromethane	16	9	25	0	0	0	00	00	00	100 0
cis-1,2-Dichloroethene	16	9	25	1	0	1	6 3	00	4 0	96 0
cis-1,3-Dichloropropene	16	9	25	0	0	0	00	00	00	100 0
Dibromochloromethane	16	9	25	0	0	0	00	00	00	100 0
Dibromomethane	16	9	25	0	0	0	00	00	00	100 0
Dichlorodifluoromethane	16	9	25	0	0	0	00	00	00	100 0
Ethylbenzene	16	9	25	0	0	0	00	00	00	100 0
Hexachlorobutadiene	16	9	25	0	0	0	00	00	00	100 0
Isopropylbenzene	16	9	25	0	0	0	00	00	00	100 0
m/p-Xylene	16	9	25	0	0	0	00	00	00	100 0
Methylene Chloride	16	9	25	9	5	14	56 3	55 6	56 0	44 0
Naphthalene	16	9	25	0	0	0	00	00	00	100 0
n-Butylbenzene	16	9	25	0	0	0	00	00	00	100 0
n-Propylbenzene	16	9	25	0	0	0	00	00	00	100 0
o-Chlorotoluene	16	9	25	0	0	0	00	00	00	100 0
o-Xylene	16	9	25	0	0	0	00	00	00	100 0
p-Chlorotoluene	16	9	25	0	0	0	00	00	00	100 0
p-Isopropyltoluene	16	9	25	0	0	0	00	00	00	100 0
sec-Butylbenzene	16	9	25	0	0	0	00	00	00	100 0
Styrene	16	9	25	0	0	0	00	00	00	100 0
tert-Butylbenzene	16	9	25	0	0	0	00	00	00	100 0
Tetrachloroethene	16	9	25	7	0	7	43 8	00	28 0	72 0
Toluene	16	9	25	0	0	0	00	00	00	100 0
trans-1,2-Dichloroethene	16	9	25	0	0	0	00	00	00	100 0
trans-1,3-Dichloropropene	16	9	25	0	0	0	00	00	00	100 0
Trichloroethene	16	9	25	7	0	7	43 8	00	28 0	72 0
Trichlorofluoromethane	16	9	25	0	0	0	00	00	00	100 0
Vinyl Chloride	16	9	25	0	0	0	00	00	00	100 0

**Table 6-2 Comparative Statistics for Groundwater Analytes with <50 Percent Sample Non-Detections
Present Sanitary Landfill**

Parameter	Sample Non-Detections	Sample Normality, %	3 549	4 451	Yes	18 841	4 451	Yes	N/A	N/A	N/A	N/A	N/A
Water Quality													
Fluoride	0	0 766	0 964	0 901	Log Normal				35 5	-0 962	2 326	N/A	N/A
Nitrate/Nitrite	9 1	0 488	0 859	0 911	Unknown				*	*	*	No	*
Sulfate	0	0 455	0 751	0 901	Unknown				*	*	*	*	*
TDS	0	0 522	0 693	0 901	Unknown				*	*	*	*	*
Metals													
Aluminum	9	0 934	0 884	0 911	Normal	1 377	4 351	Yes	N/A	N/A	N/A	N/A	N/A
Antimony	45 5	N/A	N/A	N/A	Unknown				45	-0 261	2 326	No	No
Barium	0	0 920	0 812	0 911	Normal	11 386	4 351	No	23 5	-1 844	2 326	No	No
Cadmium	40 9	N/A	N/A	N/A	Unknown				80	2 337	2 326	Yes	Yes
Calcium	0	0 462	0 714	0 911	Unknown				96	3 504	2 326	Yes	Yes
Chromium	31 8	N/A	N/A	N/A	Unknown				56 5	0 591	2 326	No	No
Copper	13 6	0 818	0 916	0 911	Log Normal	8 103	4 351	No	75	1 957	2 326	No	No
Iron	45 5	N/A	N/A	N/A	Unknown				51 5	0 223	2 326	No	No
Lithium	0	0 501	0 895	0 911	Unknown				96	3 502	2 326	Yes	Yes
Magnesium	0	0 467	0 742	0 911	Unknown				96	3 503	2 326	Yes	Yes
Manganese	13 6	0 418	0 818	0 911	Unknown				50	0 111	2 326	No	No
Molybdenum	36 4	N/A	N/A	N/A	Unknown				96	3 525	2 326	Yes	Yes
Nickel	18 2	N/A	N/A	N/A	Unknown				80	2 325	2 326	No	No
Potassium	0	0 433	0 800	0 911	Unknown				96	3 503	2 326	Yes	Yes
Selenium	31 8	N/A	N/A	N/A	Unknown				70 5	1 625	2 326	No	No
Sodium	0	0 576	0 750	0 911	Unknown				96	3 502	2 326	Yes	Yes
Strontium	0	0 453	0 775	0 911	Unknown				96	3 504	2 326	Yes	Yes
Zinc	0	0 733	0 902	0 911	Unknown				62	0 996	2 326	No	No
Radionuclides													
U-233/234	42 8	N/A	N/A	N/A	Unknown				80	3 262	2 326	Yes	Yes
U-238	38 1	N/A	N/A	N/A	Unknown				80	3 263	2 326	Yes	Yes
VOCs													
Methylene Chloride	44 0	N/A	N/A	N/A	Unknown				60	-0 720	2 326	No	No

* Insufficient number of downgradient sample results to perform analysis

N/A = not applicable

¹ Significant difference in downgradient to upgradient sample groups shown in bold typeface

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data groups Statistically significant differences (at the 1-percent significance level) in upgradient versus downgradient groundwater quality were found for fluoride, cadmium, calcium, lithium, magnesium, molybdenum, potassium, sodium, strontium, U-233/234, and U-238 With the exception of cadmium and molybdenum, these results are similar those reported in previous RCRA reports (see Section 3 0)

Of the nine trace metals reported with non-detections exceeding 50 percent sample set, only arsenic in well B206989 appears to be elevated above upgradient groundwater concentrations The elevated concentration of this analyte in well B206989, as also observed for nitrate/nitrite, lithium, and selenium in this well, may signify an association with a contaminant source other than the landfill The elevated activity-concentration of U-235 in this well compared to the other downgradient wells and upgradient wells could result from either natural sources present within the bedrock, as it occurs within the background range for this isotope (EG&G, 1993, Table D-9), or alternatively, from the unknown source tentatively implicated to explain the elevated concentrations for nitrate/nitrite, lithium, and selenium

7.0 GROUNDWATER INTERCEPT SYSTEM

Gaining an understanding of the current operational status of the groundwater intercept system and it's success at diverting groundwater flow around the landfill is an important component in finalizing landfill closure design and end state The available information contained within the *Phase I RFI/RI Work Plan for Operable Unit No 7 - Present Sanitary Landfill* (DOE, 1991b) and other Operable Unit 7 documentation contain engineering design specifications, but do not provide details on system operation, such as valving configurations and discharge data Discharge at drain outfalls SW099 and SW100 located below the landfill pond dam is usually minimal or absent despite evidence, such as an abundance of valley head-cut seeps in pre-landfill aerial photographs, that suggest flow should be greater than currently observed assuming proper drain function Explanations for the lack of appreciable discharge at these outfalls involve at least four scenerios 1) discharge is currently routed toward the landfill pond by valving and piping

shown in design drawings, 2) the lines have been broken or breached during normal landfill operations resulting in subsurface releases of drain water to refuse materials, 3) the drain system was never properly functional because of leakage caused by geological irregularities, design or installation flaws, or other potential shortcomings, and 4) groundwater levels at the perimeter of the landfill drop below the elevation of the groundwater diversion system drainpipe during extended periods during the year

For these reasons, a preliminary investigation into drain operation was undertaken to gain additional information on the fate of groundwater collected by the system. This investigation consisted of a records search to uncover additional documentation on the historical operation and valve configuration, a field search to locate valves, drain line locations, and drain outfall locations at the landfill pond, and a monitoring program for sampling groundwater flow issuing from SW099 and SW100.

A records search resulted in the disclosure of no new information relevant to drain operation beyond that contained within DOE (1991b). The field survey, however, was more successful resulting in the location of valving for both the north and south intercept lines, the location of apparent pond line locations indicated by subtle changes in topography and vegetation leading from the valves, and location of the south pond drain outfall during a period of low pond stage (May 1999). Significantly, no discharge was observed at this outfall during a time when SW099 and SW100 were both flowing.

Observation of drain outfalls SW099 and SW100 was conducted at roughly monthly intervals during the Fall and Winter of 1998. In December 1998, a sufficient amount of flow was observed at SW099 to justify sampling for VOCs. The analytical results for this sample, presented in Appendix D, reveal that VOC contamination is absent in discharge from this station. The SW100 outfall was dry during all site visits prior to May 1999, except for incident precipitation which had built up inside the weir box. In May 1999, flows from both outfalls were observed and a complete sample set was collected for VOCs, metals, radionuclides (tritium and uranium

isotopes), and water quality parameters. The results of the 1999 sampling are currently unavailable and will be presented in the 1999 Landfill Groundwater Monitoring Report.

8.0 CONCLUSIONS

Groundwater in the vicinity of the Present Sanitary Landfill generally flows to the east, with the flow components converging toward the East Landfill Pond. Groundwater discharging from the landfill then mixes with pond water where it either evaporates or is pumped to Pond A-3 via the Pond A-1 bypass for eventual discharge from the Site. Subsurface leakage from the pond is also expected to occur, although the quantity of leakage is expected to be small based on the low hydraulic conductivity measured for the underlying bedrock materials. Groundwater in the drainage east of the dam flows to the east along the stream course and eventually is discharged from the Site via evapotranspiration, surface water, or as lateral subsurface flow.

The potentiometric surface configuration for the landfill based on 1994 groundwater elevations suggests that the groundwater-diversion system performs more effectively on the southwest side of the landfill than on the northwest side. It is believed that these general physical characteristics of the groundwater system change little over time barring dramatic climatic or geologic events and remain applicable for this and future reports.

Groundwater conditions at the Present Sanitary Landfill in 1998 appear to be generally consistent with the results of previous monitoring. An increase in sampling frequency from semi-annual to quarterly resulted in the generation of sufficient downgradient data to perform statistical analyses for most analytes. Statistical comparisons of upgradient versus downgradient UHSU groundwater at the Present Sanitary Landfill were performed for analytes meeting the minimum evaluation criteria of <50 percent non-detections and at least four samples per upgradient and downgradient data set. Significant differences (at the 1% level) in upgradient compared to downgradient groundwater quality were found for fluoride, cadmium, calcium, lithium, magnesium, molybdenum, potassium, sodium, strontium, U-233/234, and U-238. Of these constituents,

cadmium and molybdenum appear to show significant differences for the first time, the remaining analytes with significant differences have been reported in previous landfill groundwater monitoring reports. Volatile organic compounds (except methylene chloride), nine trace metals (arsenic, beryllium, cobalt, lead, mercury, silver, thallium, tin, and vanadium), tritium, and U-235 could not be evaluated statistically because the percentage of non-detections exceeded 50 percent or because of an insufficient number of downgradient samples (sulfate and total dissolved solids). In this analyte group, arsenic, U-235, sulfate, and total dissolved solids appear to be elevated above upgradient concentrations. The trends of these analytes, however, do not appear to be increasing with time. Based on these data, it is evident that the Present Sanitary Landfill currently has no groundwater quality excursions reportable under the IMP. A more complete review of available groundwater and soils data associated potential upgradient, non-landfill contaminant sources appears to be warranted to investigate the elevated occurrences of nitrate/nitrite, lithium, and selenium in downgradient well B206989.

Notable accomplishments made at the Present Sanitary Landfill for 1998 included a preliminary investigation into the operation of the groundwater intercept system. This investigation consisted of a records search to locate relevant documentation concerning intercept system design, installation, and operation, a field search for intercept line valves and pond outfalls, and flow monitoring and sampling of drain outflows (SW099 and SW100) located east of the East Landfill Pond dam. No new information was uncovered during the records search, however, the field search was successful in locating line valves, line locations leading from the valves to the landfill pond outfalls, and the south intercept line outfall location to the landfill pond. A VOC sample collected at SW099 in December 1998 found no evidence of VOC contaminants in discharge water from the north intercept line. SW100, located at the terminus of the south intercept drain line, was dry and could not be sampled in 1998. Sampling of both drain outfalls conducted in May 1999 during high water table conditions is expected to provide additional information on drain function, such as whether landfill leachate or PU&D Yard VOC plume contaminants are being intercepted by the drain and discharged below the pond.

9.0 REFERENCES

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Appendix A: Water Level Data

Appendix A
Water Level Measurements for Present Sanitary Landfill Wells - 1998

Well #	Measurement Date	Measurement Type	Depth to Water (ft)	Total of Casing (ft) (in)	Water Elevation (ft) (in)
4087	1/12/98	Monthly	2 51	5884 61	5882 10
4087	2/5/98	Monthly	1 80	5884 61	5882 81
4087	2/24/98	Sample	2 74	5884 61	5881 87
4087	3/5/98	Monthly	2 79	5884 61	5881 82
4087	4/10/98	Monthly	2 39	5884 61	5882 22
4087	5/5/98	Monthly	2 39	5884 61	5882 22
4087	6/1/98	Monthly	4 56	5884 61	5880 05
4087	7/1/98	Monthly	5 46	5884 61	5879 15
4087	8/4/98	Monthly	6 82	5884 61	5877 79
4087	8/26/98	Sample	7 82	5884 61	5876 79
4087	9/1/98	Monthly	8 25	5884 61	5876 36
4087	10/6/98	Monthly	Dry	5884 61	Dry
4087	11/3/98	Monthly	Dry	5884 61	Dry
4087	11/17/98	Sample	8 32	5884 61	5876 29
4087	12/3/98	Monthly	Dry	5884 61	Dry
52894	1/12/98	Quarterly	4 48	5870 75	5866 27
52894	4/10/98	Quarterly	3 29	5870 75	5867 46
52894	5/26/98	Sample	3 66	5870 75	5867 09
52894	7/1/98	Quarterly	6 15	5870 75	5864 60
52894	8/25/98	Sample	5 28	5870 75	5865 47
52894	10/6/98	Quarterly	7 98	5870 75	5862 77
52894	10/27/98	Sample	Dry	5870 75	Dry
5887	1/7/98	Quarterly	9 53	5996 77	5987 24
5887	3/5/98	Sample	10 90	5996 77	5985 87
5887	4/7/98	Quarterly	4 41	5996 77	5992 36
5887	5/8/98	Quarterly	4 30	5996 77	5992 47
5887	5/26/98	Sample	5 51	5996 77	5991 26
5887	7/1/98	Quarterly	8 46	5996 77	5988 31
5887	8/31/98	Sample	10 31	5996 77	5986 46
5887	10/5/98	Quarterly	11 85	5996 77	5984 92
5887	12/14/98	Sample	13 31	5996 77	5983 46
70193	1/7/98	Quarterly	12 12	5992 00	5979 88
70193	2/26/98	Sample	12 71	5992 00	5979 29
70193	4/7/98	Quarterly	5 21	5992 00	5986 79
70193	6/22/98	Sample	9 63	5992 00	5982 37
70193	7/1/98	Quarterly	10 18	5992 00	5981 82
70193	7/14/98	Sample	10 71	5992 00	5981 29
70193	9/29/98	Sample	12 54	5992 00	5979 46
70193	10/6/98	Quarterly	12 76	5992 00	5979 24
70193	11/30/98	Sample	13 19	5992 00	5978 81
70393	1/7/98	Quarterly	9 71	6000 10	5990 39

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Appendix A
Water Level Measurements for Present Sanitary Landfill Wells - 1998

Well #	Measurement Date	Measurement Type	Depth to Water (ft)	Top of Casing (ft amsl)	Water Elevation (ft amsl)
70393	3/5/98	Sample	11 52	6000 10	5988 58
70393	4/7/98	Quarterly	3 81	6000 10	5996 29
70393	5/8/98	Quarterly	3 05	6000 10	5997 05
70393	6/24/98	Sample	7 13	6000 10	5992 97
70393	7/1/98	Quarterly	8 05	6000 10	5992 05
70393	8/26/98	Sample	9 65	6000 10	5990 45
70393	10/5/98	Quarterly	12 03	6000 10	5988 07
70393	12/14/98	Sample	13 17	6000 10	5986 93
70493	1/7/98	Quarterly	9 70	6000 00	5990 30
70493	2/25/98	Sample	11 60	6000 00	5988 40
70493	4/7/98	Quarterly	5 48	6000 00	5994 52
70493	6/22/98	Sample	7 40	6000 00	5992 60
70493	7/1/98	Quarterly	10 16	6000 00	5989 84
70493	8/20/98	Sample	8 95	6000 00	5991 05
70493	10/5/98	Quarterly	11 16	6000 00	5988 84
70493	11/18/98	Sample	12 22	6000 00	5987 78
B206989	1/12/98	Quarterly	21 24	5884 32	5863 08
B206989	2/24/98	Sample	21 50	5884 32	5862 82
B206989	4/10/98	Quarterly	22 43	5884 32	5861 89
B206989	6/2/98	Sample	20 92	5884 32	5863 40
B206989	7/1/98	Quarterly	23 07	5884 32	5861 25
B206989	8/25/98	Sample	21 60	5884 32	5862 72
B206989	10/6/98	Quarterly	22 57	5884 32	5861 75
B206989	11/16/98	Sample	21 53	5884 32	5862 79

^a below top of casing

amsl = above mean sea level

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Appendix B: Groundwater Analytical Data

Appendix B1: Water Quality Parameters

Appendix B2: Metals

Appendix B3: Radionuclides

Appendix B4: Volatile Organic Compounds

Laboratory Qualifier Codes

- B = Organics (volatiles, semivolatiles, pesticides/PCBs) indicates chemical was in both the sample and associated method blank
- B = Inorganics (metals and other inorganics) detected concentration was less than CRDL and above IDL
- B = Radionuclides - The activity in the method blank exceeded the minimal detectable activity (MDA)
- D = Organics - Analysis was performed at a dilution
- E = Organics - Chemical exceeds calibration range of the instrument
- E = Inorganics - Reported value is estimated due to interference
- J = Organics - Positively identified below SQL - result is estimated
- J = Inorganics and Radionuclides - Estimated quantitation
- N = Metals - Spike recoveries in the matrix spike sample did not meet advisory limits
- U = All analyses - Analyzed chemical was not detected
- * = Organics - Outside contact required QC limits
- * = Metals - Matrix duplicate analysis did not meet advisory limits

Validation Qualifier Codes

- V = No problems with the data were observed at the indicated review level
- J = The associated value is an estimated quantity
- JB = Result qualified due to blank contamination for results below the RDL
- U = The associated value is considered undetected at an elevated level of detection
- NJ = The associated value is presumably estimated
- UJ = The associated value is considered estimated at an elevated level of detection
- R = The data are unusable (Note Analyte may or may not be present)

Appendix B1: Water Quality Parameters

Appendix B. Groundwater Analytical Data
Water Quality Parameters

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
4087	2/24/98	GW05821TE	Fluoride	1.2	mg/L			
4087	2/24/98	GW05821TE	Nitrate/Nitrite	0.29	mg/L		0.1	
4087	2/24/98	GW05821TE	Sulfate	370	mg/L			
4087	2/24/98	GW05821TE	Total Dissolved Solids	900	mg/L			
4087	6/1/98	GW05969TE	Fluoride	1.4	mg/L		0.05	
4087	6/1/98	GW05969TE	Nitrate/Nitrite	0.36	mg/L		0.05	
4087	6/1/98	GW05969TE	Sulfate	740	mg/L		1	
4087	6/1/98	GW05969TE	Total Dissolved Solids	1700	mg/L		10	
52894	5/26/98	GW05976TE	Nitrate/Nitrite	0.05	mg/L	U	0.05	
52894	8/25/98	GW06045TE	Fluoride	1.9	mg/L		0.05	
52894	8/25/98	GW06045TE	Nitrate/Nitrite	0.33	mg/L		0.05	
52894	8/25/98	GW06045TE	Sulfate	150	mg/L		1	
52894	8/25/98	GW06045TE	Total Dissolved Solids	820	mg/L		10	
5887	3/5/98	GW05826TE	Fluoride	0.18	mg/L			
5887	3/5/98	GW05826TE	Nitrate/Nitrite	2.4	mg/L			V1
5887	3/5/98	GW05826TE	Sulfate	32	mg/L		5	
5887	3/5/98	GW05826TE	Total Dissolved Solids	150	mg/L			1
5887	5/26/98	GW05980TE	Fluoride	0.1	mg/L		0.05	
5887	5/26/98	GW05980TE	Nitrate/Nitrite	0.05	mg/L	U	0.05	
5887	5/26/98	GW05980TE	Sulfate	23	mg/L		1	
5887	5/26/98	GW05980TE	Total Dissolved Solids	120	mg/L		10	
5887	8/31/98	GW06043TE	Fluoride	0.17	mg/L		0.05	
5887	8/31/98	GW06043TE	Nitrate/Nitrite	2.2	mg/L		0.05	
5887	8/31/98	GW06043TE	Sulfate	24	mg/L		1	
5887	8/31/98	GW06043TE	Total Dissolved Solids	210	mg/L		10	
5887	12/14/98	GW06151TE	Fluoride	0.20	mg/L		0.05	V1
5887	12/14/98	GW06151TE	Nitrate/Nitrite	3.4	mg/L		0.05	V1
5887	12/14/98	GW06151TE	Sulfate	31	mg/L		1	V1
5887	12/14/98	GW06151TE	Total Dissolved Solids	160	mg/L		10	V1
70193	2/26/98	GW05832TE	Fluoride	0.34	mg/L			
70193	2/26/98	GW05832TE	Nitrate/Nitrite	1.9	mg/L		0.10	
70193	2/26/98	GW05832TE	Sulfate	48.4	mg/L			
70193	2/26/98	GW05832TE	Total Dissolved Solids	160	mg/L			
70193	6/22/98	GW06034TE	Fluoride	0.44	mg/L		0.05	
70193	6/22/98	GW06034TE	Nitrate/Nitrite	2.1	mg/L		0.05	
70193	6/22/98	GW06034TE	Sulfate	24	mg/L		1	
70193	6/22/98	GW06034TE	Total Dissolved Solids	200	mg/L		10	
70193	7/14/98	GW05987TE	Fluoride	0.23	mg/L		0.05	
70193	7/14/98	GW05987TE	Nitrate/Nitrite	1.9	mg/L		0.05	
70193	7/14/98	GW05987TE	Sulfate	25	mg/L		1	
70193	7/14/98	GW05987TE	Total Dissolved Solids	230	mg/L		10	
70193	11/30/98	GW06180TE	Fluoride	0.30	mg/L		0.05	V1
70193	11/30/98	GW06180TE	Nitrate/Nitrite	2.1	mg/L		0.05	V1
70193	11/30/98	GW06180TE	Sulfate	22	mg/L		1	V1
70193	11/30/98	GW06180TE	Total Dissolved Solids	170	mg/L		10	J1
70393	3/5/98	GW05835TE	Fluoride	0.12	mg/L			
70393	3/5/98	GW05835TE	Nitrate/Nitrite	4.1	mg/L		0.5	
70393	3/5/98	GW05835TE	Sulfate	31	mg/L		5	
70393	3/5/98	GW05835TE	Total Dissolved Solids	140	mg/L			1

Appendix B. Groundwater Analytical Data

Water Quality Parameters

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
70393	6/24/98	GW06035TE	Fluonde	0 07	mg/L		0 05	
70393	6/24/98	GW06035TE	Nitrate/Nitrite	4 4	mg/L		0 05	
70393	6/24/98	GW06035TE	Sulfate	29	mg/L		1	
70393	6/24/98	GW06035TE	Total Dissolved Solids	140	mg/L		10	
70393	8/26/98	GW05990TE	Fluonde	0 11	mg/L		0 05	
70393	8/26/98	GW05990TE	Nitrate/Nitrite	4 3	mg/L		0 05	
70393	8/26/98	GW05990TE	Sulfate	30	mg/L		1	
70393	8/26/98	GW05990TE	Total Dissolved Solids	210	mg/L		10	
70393	12/14/98	GW06190TE	Fluonde	0 16	mg/L		0 05	V1
70393	12/14/98	GW06190TE	Nitrate/Nitrite	5 8	mg/L		0 05	V1
70393	12/14/98	GW06190TE	Sulfate	28	mg/L		1	V1
70393	12/14/98	GW06190TE	Total Dissolved Solids	160	mg/L		10	V1
70493	2/25/98	GW05837TE	Fluonde	0 56	mg/L			
70493	2/25/98	GW05837TE	Nitrate/Nitrite	2	mg/L		0 5	
70493	2/25/98	GW05837TE	Sulfate	35 4	mg/L			
70493	2/25/98	GW05837TE	Total Dissolved Solids	180	mg/L			
70493	6/22/98	GW06036TE	Fluonde	0 92	mg/L		0 05	
70493	6/22/98	GW06036TE	Nitrate/Nitrite	1 9	mg/L		0 05	
70493	6/22/98	GW06036TE	Sulfate	13	mg/L		1	
70493	6/22/98	GW06036TE	Total Dissolved Solids	190	mg/L		10	
70493	8/20/98	GW05992TE	Fluonde	0 41	mg/L		0 05	
70493	8/20/98	GW05992TE	Nitrate/Nitrite	2 4	mg/L		0 05	
70493	8/20/98	GW05992TE	Sulfate	13	mg/L		1	
70493	8/20/98	GW05992TE	Total Dissolved Solids	200	mg/L		10	
70493	11/18/98	GW06187TE	Fluonde	0 46	mg/L		0 05	V1
70493	11/18/98	GW06187TE	Nitrate/Nitrite	1 9	mg/L		0 05	V1
70493	11/18/98	GW06187TE	Sulfate	13	mg/L		1	V1
70493	11/18/98	GW06187TE	Total Dissolved Solids	200	mg/L		10	V1
B206989	6/2/98	GW05997TE	Nitrate/Nitrite	30	mg/L		0 05	
B206989	8/25/98	GW06048TE	Nitrate/Nitrite	35	mg/L		0 05	

Appendix B2: Metals

Appendix B Groundwater Analytical Data

							Metals	
Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
4087	2/24/98	GW05821TE	Aluminum	51 2	ug/L	B		
4087	2/24/98	GW05821TE	Antimony	1 4	ug/L	B		
4087	2/24/98	GW05821TE	Arsenic	1 6	ug/L	U		
4087	2/24/98	GW05821TE	Barium	30 2	ug/L	B		
4087	2/24/98	GW05821TE	Beryllium	0 2	ug/L	U	0 2	
4087	2/24/98	GW05821TE	Cadmium	0 9	ug/L	B	0 4	
4087	2/24/98	GW05821TE	Calcium	102000	ug/L			
4087	2/24/98	GW05821TE	Chromium	16 5	ug/L			
4087	2/24/98	GW05821TE	Cobalt	0 5	ug/L	U	0 5	
4087	2/24/98	GW05821TE	Copper	2	ug/L	B	0 7	
4087	2/24/98	GW05821TE	Iron	16 9	ug/L	U		
4087	2/24/98	GW05821TE	Lead	1 2	ug/L	B		
4087	2/24/98	GW05821TE	Lithium	50 5	ug/L	B		
4087	2/24/98	GW05821TE	Magnesium	29700	ug/L			
4087	2/24/98	GW05821TE	Manganese	0 91	ug/L	B		
4087	2/24/98	GW05821TE	Mercury	0 1	ug/L	U	0 1	
4087	2/24/98	GW05821TE	Molybdenum	4 6	ug/L	B		
4087	2/24/98	GW05821TE	Nickel	11 4	ug/L	B		
4087	2/24/98	GW05821TE	Potassium	2680	ug/L	BE		
4087	2/24/98	GW05821TE	Selenium	6	ug/L		1 8	
4087	2/24/98	GW05821TE	Silver	0 3	ug/L	U	0 3	
4087	2/24/98	GW05821TE	Sodium	165000	ug/L			
4087	2/24/98	GW05821TE	Strontium	879	ug/L			
4087	2/24/98	GW05821TE	Thallium	2 3	ug/L	U		
4087	2/24/98	GW05821TE	Tin	1 7	ug/L	U		
4087	2/24/98	GW05821TE	Vanadium	0 6	ug/L	U	0 6	
4087	2/24/98	GW05821TE	Zinc	8 8	ug/L	B		
4087	6/1/98	GW05969TE	Aluminum	33 6	ug/L			
4087	6/1/98	GW05969TE	Antimony	0 9	ug/L	U		
4087	6/1/98	GW05969TE	Arsenic	0 81	ug/L	B		
4087	6/1/98	GW05969TE	Barium	25	ug/L	B		
4087	6/1/98	GW05969TE	Beryllium	0 02	ug/L	U		
4087	6/1/98	GW05969TE	Cadmium	0 98	ug/L			
4087	6/1/98	GW05969TE	Calcium	84100	ug/L			
4087	6/1/98	GW05969TE	Chromium	21 4	ug/L			
4087	6/1/98	GW05969TE	Cobalt	0 15	ug/L	U		
4087	6/1/98	GW05969TE	Copper	2 8	ug/L	B		
4087	6/1/98	GW05969TE	Iron	5 2	ug/L	B		
4087	6/1/98	GW05969TE	Lead	0 48	ug/L	U		
4087	6/1/98	GW05969TE	Lithium	198	ug/L	B		
4087	6/1/98	GW05969TE	Magnesium	36700	ug/L			
4087	6/1/98	GW05969TE	Manganese	1 2	ug/L	B		
4087	6/1/98	GW05969TE	Mercury	0 1	ug/L	U		
4087	6/1/98	GW05969TE	Molybdenum	4 9	ug/L	B		
4087	6/1/98	GW05969TE	Nickel	5 6	ug/L	B		
4087	6/1/98	GW05969TE	Potassium	1620	ug/L	B		
4087	6/1/98	GW05969TE	Selenium	6 5	ug/L			
4087	6/1/98	GW05969TE	Silver	0 08	ug/L	B		
4087	6/1/98	GW05969TE	Sodium	321000	ug/L			
4087	6/1/98	GW05969TE	Strontium	983	ug/L			

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Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
4087	6/1/98	GW05969TE	Thallium	0.22	ug/L	U		
4087	6/1/98	GW05969TE	Tin	1.2	ug/L	B		
4087	6/1/98	GW05969TE	Uranium	51.4	ug/L	B		
4087	6/1/98	GW05969TE	Vanadium	0.29	ug/L	B		
4087	6/1/98	GW05969TE	Zinc	19.3	ug/L	B		
52894	5/26/98	GW05976TE	Aluminum	42.2	ug/L	*	0.25	
52894	5/26/98	GW05976TE	Antimony	0.53	ug/L	B	0.1	
52894	5/26/98	GW05976TE	Arsenic	0.4	ug/L	*U	0.4	
52894	5/26/98	GW05976TE	Barium	84.9	ug/L	B	0.5	
52894	5/26/98	GW05976TE	Beryllium	0.05	ug/L	B	0	
52894	5/26/98	GW05976TE	Cadmium	0.36	ug/L	N	0.05	
52894	5/26/98	GW05976TE	Calcium	56300	ug/L		13.5	
52894	5/26/98	GW05976TE	Chromium	1.8	ug/L	NB	0.05	
52894	5/26/98	GW05976TE	Cobalt	1.8	ug/L	B	0.5	
52894	5/26/98	GW05976TE	Copper	3.6	ug/L		0.3	
52894	5/26/98	GW05976TE	Iron	135	ug/L		17.5	
52894	5/26/98	GW05976TE	Lead	2	ug/L	*	0.05	
52894	5/26/98	GW05976TE	Lithium	135	ug/L	N	1	
52894	5/26/98	GW05976TE	Magnesium	18900	ug/L		60	
52894	5/26/98	GW05976TE	Manganese	114	ug/L		0.5	
52894	5/26/98	GW05976TE	Mercury	0.1	ug/L	*U	0.1	
52894	5/26/98	GW05976TE	Molybdenum	5	ug/L	B	1	
52894	5/26/98	GW05976TE	Nickel	3.5	ug/L	B	0.5	
52894	5/26/98	GW05976TE	Potassium	1850	ug/L	B	18	
52894	5/26/98	GW05976TE	Selenium	0.83	ug/L	B	0.2	
52894	5/26/98	GW05976TE	Silver	0.05	ug/L	U	0.05	
52894	5/26/98	GW05976TE	Sodium	176000	ug/L	E	225	
52894	5/26/98	GW05976TE	Strontium	560	ug/L		0.5	
52894	5/26/98	GW05976TE	Thallium	0.16	ug/L	NB	0.15	
52894	5/26/98	GW05976TE	Tin	1.7	ug/L	B	1.5	
52894	5/26/98	GW05976TE	Vanadium	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Zinc	18.1	ug/L	EB	0.5	
52894	8/25/98	GW06045TE	Aluminum	14.2	ug/L	B	14.2	
52894	8/25/98	GW06045TE	Antimony	0.5	ug/L	B	0.8	
52894	8/25/98	GW06045TE	Arsenic	1	ug/L		2.8	
52894	8/25/98	GW06045TE	Barium	84	ug/L	B	0.3	
52894	8/25/98	GW06045TE	Beryllium	0.02	ug/L	U	0.1	
52894	8/25/98	GW06045TE	Cadmium	0.46	ug/L		0.4	
52894	8/25/98	GW06045TE	Calcium	54500	ug/L		4.7	
52894	8/25/98	GW06045TE	Chromium	0.15	ug/L	U	0.6	
52894	8/25/98	GW06045TE	Cobalt	1.3	ug/L	B	0.7	
52894	8/25/98	GW06045TE	Copper	2	ug/L	B	0.8	
52894	8/25/98	GW06045TE	Iron	70.1	ug/L	B	13.9	
52894	8/25/98	GW06045TE	Lead	0.42	ug/L	U	1.7	
52894	8/25/98	GW06045TE	Lithium	151	ug/L		11.5	
52894	8/25/98	GW06045TE	Magnesium	18900	ug/L		3.9	
52894	8/25/98	GW06045TE	Manganese	139	ug/L		2.5	
52894	8/25/98	GW06045TE	Mercury	0.1	ug/L	U	0.1	
52894	8/25/98	GW06045TE	Molybdenum	5.7	ug/L	B	0.9	
52894	8/25/98	GW06045TE	Nickel	3.1	ug/L	B	1.5	

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Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
52894	8/25/98	GW06045TE	Potassium	2680	ug/L	B	18.2	
52894	8/25/98	GW06045TE	Selenium	1.7	ug/L		3.6	
52894	8/25/98	GW06045TE	Silver	0.02	ug/L	U	0.1	
52894	8/25/98	GW06045TE	Sodium	179000	ug/L		26.4	
52894	8/25/98	GW06045TE	Strontium	568	ug/L		0.1	
52894	8/25/98	GW06045TE	Thallium	0.15	ug/L	U	0.6	
52894	8/25/98	GW06045TE	Tin	0.78	ug/L	U	3.1	
52894	8/25/98	GW06045TE	Vanadium	0.34	ug/L	B	0.6	
52894	8/25/98	GW06045TE	Zinc	8.1	ug/L	B	0.6	
5887	3/5/98	GW05826TE	Aluminum	32	ug/L	B	13.1	
5887	3/5/98	GW05826TE	Antimony	1.4	ug/L	U		V1
5887	3/5/98	GW05826TE	Arsenic	1.6	ug/L	U		J1
5887	3/5/98	GW05826TE	Barium	61.2	ug/L	B		V1
5887	3/5/98	GW05826TE	Beryllium	0.2	ug/L	U	0.2	
5887	3/5/98	GW05826TE	Cadmium	0.4	ug/L	U	0.4	
5887	3/5/98	GW05826TE	Calcium	20400	ug/L			V1
5887	3/5/98	GW05826TE	Chromium	1.1	ug/L	B		UJ1
5887	3/5/98	GW05826TE	Cobalt	0.5	ug/L	U	0.5	
5887	3/5/98	GW05826TE	Copper	1.9	ug/L	B		J1
5887	3/5/98	GW05826TE	Iron	16.9	ug/L	U		V1
5887	3/5/98	GW05826TE	Lead	1.2	ug/L	U		J1
5887	3/5/98	GW05826TE	Lithium	1.9	ug/L	B		UJ1
5887	3/5/98	GW05826TE	Magnesium	4490	ug/L	B		V1
5887	3/5/98	GW05826TE	Manganese	0.78	ug/L	B		UJ1
5887	3/5/98	GW05826TE	Mercury	0.1	ug/L	U	0.1	
5887	3/5/98	GW05826TE	Molybdenum	0.5	ug/L	U	0.5	
5887	3/5/98	GW05826TE	Nickel	0.6	ug/L	U	0.6	
5887	3/5/98	GW05826TE	Potassium	832	ug/L	B		V1
5887	3/5/98	GW05826TE	Selenium	1.8	ug/L	U		V1
5887	3/5/98	GW05826TE	Silver	0.3	ug/L	U	0.3	
5887	3/5/98	GW05826TE	Sodium	8000	ug/L			V1
5887	3/5/98	GW05826TE	Strontium	126	ug/L	B		V1
5887	3/5/98	GW05826TE	Thallium	2.3	ug/L	U		V1
5887	3/5/98	GW05826TE	Tin	1.7	ug/L	U		V1
5887	3/5/98	GW05826TE	Vanadium	0.6	ug/L	U	0.6	
5887	3/5/98	GW05826TE	Zinc	11	ug/L	B	0.6	
5887	5/26/98	GW05980TE	Aluminum	8.7	ug/L	*B	0.25	
5887	5/26/98	GW05980TE	Antimony	0.22	ug/L	B	0.1	
5887	5/26/98	GW05980TE	Arsenic	0.4	ug/L	*U	0.4	
5887	5/26/98	GW05980TE	Barium	45.4	ug/L	B	0.5	
5887	5/26/98	GW05980TE	Beryllium	0.03	ug/L	B	0	
5887	5/26/98	GW05980TE	Cadmium	0.12	ug/L	NB	0.05	
5887	5/26/98	GW05980TE	Calcium	18300	ug/L		13.5	
5887	5/26/98	GW05980TE	Chromium	2.1	ug/L	N	0.05	
5887	5/26/98	GW05980TE	Cobalt	0.5	ug/L	U	0.5	
5887	5/26/98	GW05980TE	Copper	3.6	ug/L		0.3	
5887	5/26/98	GW05980TE	Iron	17.5	ug/L	U	17.5	
5887	5/26/98	GW05980TE	Lead	0.55	ug/L	*B	0.05	
5887	5/26/98	GW05980TE	Lithium	8	ug/L	NB	1	
5887	5/26/98	GW05980TE	Magnesium	4160	ug/L	B	60	

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Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
5887	5/26/98	GW05980TE	Manganese	0.97	ug/L	B	0.5	
5887	5/26/98	GW05980TE	Mercury	0.1	ug/L	*U	0.1	
5887	5/26/98	GW05980TE	Molybdenum	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Nickel	2.3	ug/L	B	0.5	
5887	5/26/98	GW05980TE	Potassium	613	ug/L	B	18	
5887	5/26/98	GW05980TE	Selenium	1.7	ug/L		0.2	
5887	5/26/98	GW05980TE	Silver	0.05	ug/L	U	0.05	
5887	5/26/98	GW05980TE	Sodium	6040	ug/L	E	22.5	
5887	5/26/98	GW05980TE	Strontium	109	ug/L	B	0.5	
5887	5/26/98	GW05980TE	Thallium	0.19	ug/L	NB	0.15	
5887	5/26/98	GW05980TE	Tin	1.5	ug/L	U	1.5	
5887	5/26/98	GW05980TE	Vanadium	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Zinc	11.5	ug/L	EB	0.5	
5887	8/31/98	GW06043TE	Aluminum	21.3	ug/L		24.7	
5887	8/31/98	GW06043TE	Antimony	0.9	ug/L	U	3.6	
5887	8/31/98	GW06043TE	Arsenic	0.65	ug/L	U	2.6	
5887	8/31/98	GW06043TE	Barium	65	ug/L	B	0.2	
5887	8/31/98	GW06043TE	Beryllium	0.04	ug/L	B	0.1	
5887	8/31/98	GW06043TE	Cadmium	0.1	ug/L	U	0.4	
5887	8/31/98	GW06043TE	Calcium	20300	ug/L		6.6	
5887	8/31/98	GW06043TE	Chromium	2	ug/L		0.8	
5887	8/31/98	GW06043TE	Cobalt	0.15	ug/L	U	0.6	
5887	8/31/98	GW06043TE	Copper	2.7	ug/L	B	0.8	
5887	8/31/98	GW06043TE	Iron	8.8	ug/L	B	13.6	
5887	8/31/98	GW06043TE	Lead	0.48	ug/L	U	1.9	
5887	8/31/98	GW06043TE	Lithium	3.5	ug/L	B	0.2	
5887	8/31/98	GW06043TE	Magnesium	4710	ug/L	B	9.2	
5887	8/31/98	GW06043TE	Manganese	1.1	ug/L	B	0.2	
5887	8/31/98	GW06043TE	Mercury	0.1	ug/L	U	0.1	
5887	8/31/98	GW06043TE	Molybdenum	0.56	ug/L	B	1.1	
5887	8/31/98	GW06043TE	Nickel	2.7	ug/L	B	1.3	
5887	8/31/98	GW06043TE	Potassium	986	ug/L	B	25.9	
5887	8/31/98	GW06043TE	Selenium	0.99	ug/L	B	3.6	
5887	8/31/98	GW06043TE	Silver	0.05	ug/L	U	0.2	
5887	8/31/98	GW06043TE	Sodium	7190	ug/L		5.1	
5887	8/31/98	GW06043TE	Strontium	126	ug/L	B	0.1	
5887	8/31/98	GW06043TE	Thallium	0.22	ug/L	U	0.9	
5887	8/31/98	GW06043TE	Tin	1	ug/L	U	4.0	
5887	8/31/98	GW06043TE	Vanadium	0.34	ug/L	B	0.8	
5887	8/31/98	GW06043TE	Zinc	8.5	ug/L	B	0.5	
5887	12/14/98	GW06151TE	Aluminum	20.4	ug/L		6.5	UJ1
5887	12/14/98	GW06151TE	Antimony	2	ug/L	U	2.0	V1
5887	12/14/98	GW06151TE	Arsenic	1.5	ug/L	U	1.5	V1
5887	12/14/98	GW06151TE	Barium	63.7	ug/L	B	0.50	V1
5887	12/14/98	GW06151TE	Beryllium	0.5	ug/L	U	0.50	V1
5887	12/14/98	GW06151TE	Cadmium	0.5	ug/L	U	0.50	V1
5887	12/14/98	GW06151TE	Calcium	20400	ug/L		16.0	V1
5887	12/14/98	GW06151TE	Chromium	3.1	ug/L		0.50	V1
5887	12/14/98	GW06151TE	Cobalt	1.5	ug/L	U	1.5	V1
5887	12/14/98	GW06151TE	Copper	4.6	ug/L		0.50	V1

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Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
5887	12/14/98	GW06151TE	Iron	38.4	ug/L	B	6.0	UJ1
5887	12/14/98	GW06151TE	Lead	7.4	ug/L		1.0	V1
5887	12/14/98	GW06151TE	Lithium	18.4	ug/L	B	1.0	J1
5887	12/14/98	GW06151TE	Magnesium	4200	ug/L	B	23.5	V1
5887	12/14/98	GW06151TE	Manganese	5.5	ug/L	B*	0.50	J1
5887	12/14/98	GW06151TE	Mercury	0.1	ug/L	U	0.10	V1
5887	12/14/98	GW06151TE	Molybdenum	1	ug/L	U	1.0	V1
5887	12/14/98	GW06151TE	Nickel	3.4	ug/L	B	0.50	V1
5887	12/14/98	GW06151TE	Potassium	771	ug/L	B	18.0	V1
5887	12/14/98	GW06151TE	Selenium	2	ug/L	U	2.0	J1
5887	12/14/98	GW06151TE	Silver	0.05	ug/L	U	0.05	V1
5887	12/14/98	GW06151TE	Sodium	8970	ug/L	BE	4.5	J1
5887	12/14/98	GW06151TE	Strontium	121	ug/L	B	0.50	V1
5887	12/14/98	GW06151TE	Thallium	0.68	ug/L	B	0.15	UJ1
5887	12/14/98	GW06151TE	Tin	2	ug/L	U	2.0	V1
5887	12/14/98	GW06151TE	Vanadium	0.5	ug/L	U	0.50	V1
5887	12/14/98	GW06151TE	Zinc	13	ug/L	B*	2.0	V1
70193	2/26/98	GW05832TE	Aluminum	36	ug/L	B	16	
70193	2/26/98	GW05832TE	Antimony	2.5	ug/L	B		
70193	2/26/98	GW05832TE	Arsenic	1.6	ug/L	U		
70193	2/26/98	GW05832TE	Barium	77.5	ug/L	B		
70193	2/26/98	GW05832TE	Beryllium	0.2	ug/L	U	0.2	
70193	2/26/98	GW05832TE	Cadmium	0.42	ug/L	B		
70193	2/26/98	GW05832TE	Calcium	21800	ug/L			
70193	2/26/98	GW05832TE	Chromium	0.66	ug/L	B		
70193	2/26/98	GW05832TE	Cobalt	0.5	ug/L	U	0.5	
70193	2/26/98	GW05832TE	Copper	0.7	ug/L	U	0.7	
70193	2/26/98	GW05832TE	Iron	16.9	ug/L	U		
70193	2/26/98	GW05832TE	Lead	1.4	ug/L	B*		
70193	2/26/98	GW05832TE	Lithium	3.7	ug/L	B		
70193	2/26/98	GW05832TE	Magnesium	4500	ug/L	B		
70193	2/26/98	GW05832TE	Manganese	0.78	ug/L	B		
70193	2/26/98	GW05832TE	Mercury	0.1	ug/L	U	0.1	
70193	2/26/98	GW05832TE	Molybdenum	1.1	ug/L	B		
70193	2/26/98	GW05832TE	Nickel	0.6	ug/L	U	0.6	
70193	2/26/98	GW05832TE	Potassium	1240	ug/L	B		
70193	2/26/98	GW05832TE	Selenium	2.2	ug/L	B		
70193	2/26/98	GW05832TE	Silver	0.3	ug/L	U	0.3	
70193	2/26/98	GW05832TE	Sodium	12200	ug/L			
70193	2/26/98	GW05832TE	Strontium	146	ug/L	B		
70193	2/26/98	GW05832TE	Thallium	2.3	ug/L	U		
70193	2/26/98	GW05832TE	Tin	1.7	ug/L	U		
70193	2/26/98	GW05832TE	Vanadium	0.6	ug/L	U	0.6	
70193	2/26/98	GW05832TE	Zinc	7	ug/L	B	0.6	
70193	6/22/98	GW06034TE	Aluminum	9.6	ug/L	B		
70193	6/22/98	GW06034TE	Antimony	0.37	ug/L	B		
70193	6/22/98	GW06034TE	Arsenic	0.4	ug/L	U		
70193	6/22/98	GW06034TE	Barium	84	ug/L	B		
70193	6/22/98	GW06034TE	Beryllium	0.02	ug/L	U		
70193	6/22/98	GW06034TE	Cadmium	0.11	ug/L	B		

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Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
70193	6/22/98	GW06034TE	Calcium	22600	ug/L			
70193	6/22/98	GW06034TE	Chromium	0.21	ug/L	B		
70193	6/22/98	GW06034TE	Cobalt	0.5	ug/L	U		
70193	6/22/98	GW06034TE	Copper	0.37	ug/L	B		
70193	6/22/98	GW06034TE	Iron	18	ug/L	B		
70193	6/22/98	GW06034TE	Lead	0.16	ug/L	B		
70193	6/22/98	GW06034TE	Lithium	10.6	ug/L	B		
70193	6/22/98	GW06034TE	Magnesium	4680	ug/L	B		
70193	6/22/98	GW06034TE	Manganese	0.69	ug/L	B		
70193	6/22/98	GW06034TE	Mercury	0.1	ug/L	U		
70193	6/22/98	GW06034TE	Molybdenum	1	ug/L	U		
70193	6/22/98	GW06034TE	Nickel	5.9	ug/L	B		
70193	6/22/98	GW06034TE	Potassium	920	ug/L	B		
70193	6/22/98	GW06034TE	Selenium	1.4	ug/L			
70193	6/22/98	GW06034TE	Silver	0.05	ug/L	U		
70193	6/22/98	GW06034TE	Sodium	11200	ug/L			
70193	6/22/98	GW06034TE	Strontium	146	ug/L	B		
70193	6/22/98	GW06034TE	Thallium	0.15	ug/L	U		
70193	6/22/98	GW06034TE	Tin	1.5	ug/L	U		
70193	6/22/98	GW06034TE	Vanadium	1	ug/L	U		
70193	6/22/98	GW06034TE	Zinc	28.6	ug/L			
70193	7/14/98	GW05987TE	Aluminum	35.2	ug/L		26.6	
70193	7/14/98	GW05987TE	Antimony	1.1	ug/L		3.6	
70193	7/14/98	GW05987TE	Arsenic	0.65	ug/L	U	2.6	
70193	7/14/98	GW05987TE	Barium	83.4	ug/L	B	0.2	
70193	7/14/98	GW05987TE	Beryllium	0.02	ug/L	U	0.1	
70193	7/14/98	GW05987TE	Cadmium	0.2	ug/L	B	0.4	
70193	7/14/98	GW05987TE	Calcium	23300	ug/L		14.1	
70193	7/14/98	GW05987TE	Chromium	0.24	ug/L	B	0.8	
70193	7/14/98	GW05987TE	Cobalt	0.15	ug/L	U	0.6	
70193	7/14/98	GW05987TE	Copper	1	ug/L	B	0.8	
70193	7/14/98	GW05987TE	Iron	26.1	ug/L	B	13.6	
70193	7/14/98	GW05987TE	Lead	0.48	ug/L	U	1.9	
70193	7/14/98	GW05987TE	Lithium	8.9	ug/L	B	0.2	
70193	7/14/98	GW05987TE	Magnesium	5000	ug/L	B	9.2	
70193	7/14/98	GW05987TE	Manganese	0.98	ug/L	B	0.2	
70193	7/14/98	GW05987TE	Mercury	0.1	ug/L	U	0.1	
70193	7/14/98	GW05987TE	Molybdenum	1.1	ug/L	B	1.1	
70193	7/14/98	GW05987TE	Nickel	0.74	ug/L	B	1.3	
70193	7/14/98	GW05987TE	Potassium	1120	ug/L	B	25.9	
70193	7/14/98	GW05987TE	Selenium	3.9	ug/L		3.6	
70193	7/14/98	GW05987TE	Silver	0.05	ug/L	U	0.2	
70193	7/14/98	GW05987TE	Sodium	13400	ug/L		38.6	
70193	7/14/98	GW05987TE	Strontium	151	ug/L	B	0.1	
70193	7/14/98	GW05987TE	Thallium	0.22	ug/L	U	0.9	
70193	7/14/98	GW05987TE	Tin	1	ug/L	U	4.0	
70193	7/14/98	GW05987TE	Uranium	15.2	ug/L	U	60.6	
70193	7/14/98	GW05987TE	Vanadium	0.24	ug/L	B	0.8	
70193	7/14/98	GW05987TE	Zinc	8.4	ug/L	B	1.6	
70193	11/30/98	GW06180TE	Aluminum	41.5	ug/L	*	6.5	

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Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
70193	11/30/98	GW06180TE	Antimony	2	ug/L	U	2	
70193	11/30/98	GW06180TE	Arsenic	1 5	ug/L	U	1 5	
70193	11/30/98	GW06180TE	Barium	76 3	ug/L	BE	0 5	
70193	11/30/98	GW06180TE	Beryllium	0 5	ug/L	U	0 5	
70193	11/30/98	GW06180TE	Cadmium	0 5	ug/L	U	0 5	
70193	11/30/98	GW06180TE	Calcium	20700	ug/L	E	16	
70193	11/30/98	GW06180TE	Chromium	0 5	ug/L	UE*	0 5	
70193	11/30/98	GW06180TE	Cobalt	1 5	ug/L	U	1 5	
70193	11/30/98	GW06180TE	Copper	0 58	ug/L	B	0 5	
70193	11/30/98	GW06180TE	Iron	51 6	ug/L	B	6	
70193	11/30/98	GW06180TE	Lead	1	ug/L	U	1	
70193	11/30/98	GW06180TE	Lithium	11 8	ug/L	BN	1	
70193	11/30/98	GW06180TE	Magnesium	4230	ug/L	BE	23 5	
70193	11/30/98	GW06180TE	Manganese	2 2	ug/L	B	0 5	
70193	11/30/98	GW06180TE	Mercury	0 1	ug/L	U	0 1	
70193	11/30/98	GW06180TE	Molybdenum	1 2	ug/L	B	1	
70193	11/30/98	GW06180TE	Nickel	0 5	ug/L	U	0 5	
70193	11/30/98	GW06180TE	Potassium	937	ug/L	B	18	
70193	11/30/98	GW06180TE	Selenium	3 1	ug/L	*	2	
70193	11/30/98	GW06180TE	Silver	0 05	ug/L	UN	0 05	
70193	11/30/98	GW06180TE	Sodium	10800	ug/L	E	4 5	
70193	11/30/98	GW06180TE	Strontium	240	ug/L	E	7	
70193	11/30/98	GW06180TE	Thallium	0 64	ug/L	BN	0 15	
70193	11/30/98	GW06180TE	Tin	2	ug/L	U	2	
70193	11/30/98	GW06180TE	Vanadium	0 5	ug/L	U	0 5	
70193	11/30/98	GW06180TE	Zinc	5	ug/L	B	2	
70393	3/5/98	GW05835TE	Aluminum	33 6	ug/L	B		
70393	3/5/98	GW05835TE	Antimony	1 4	ug/L	U		V1
70393	3/5/98	GW05835TE	Arsenic	1 6	ug/L	U		J1
70393	3/5/98	GW05835TE	Barium	54 4	ug/L	B		V1
70393	3/5/98	GW05835TE	Beryllium	0 2	ug/L	U	0 2	
70393	3/5/98	GW05835TE	Cadmium	0 4	ug/L	U	0 4	
70393	3/5/98	GW05835TE	Calcium	17500	ug/L			V1
70393	3/5/98	GW05835TE	Chromium	0 44	ug/L	B		UJ1
70393	3/5/98	GW05835TE	Cobalt	0 5	ug/L	U	0 5	
70393	3/5/98	GW05835TE	Copper	0 7	ug/L	U	0 7	
70393	3/5/98	GW05835TE	Iron	16 9	ug/L	U		V1
70393	3/5/98	GW05835TE	Lead	1 2	ug/L	U		J1
70393	3/5/98	GW05835TE	Lithium	5 1	ug/L	B		UJ1
70393	3/5/98	GW05835TE	Magnesium	3560	ug/L	B		V1
70393	3/5/98	GW05835TE	Manganese	2 9	ug/L	B		UJ1
70393	3/5/98	GW05835TE	Mercury	0 1	ug/L	U	0 1	
70393	3/5/98	GW05835TE	Molybdenum	0 5	ug/L	U	0 5	
70393	3/5/98	GW05835TE	Nickel	0 6	ug/L	U	0 6	
70393	3/5/98	GW05835TE	Potassium	515	ug/L	B		UJ1
70393	3/5/98	GW05835TE	Selenium	1 8	ug/L	U		V1
70393	3/5/98	GW05835TE	Silver	0 3	ug/L	U	0 3	
70393	3/5/98	GW05835TE	Sodium	10600	ug/L			V1
70393	3/5/98	GW05835TE	Strontium	101	ug/L	B		V1
70393	3/5/98	GW05835TE	Thallium	2 3	ug/L	U		V1

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Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
70393	3/5/98	GW05835TE	Tin	1 7	ug/L	U		V1
70393	3/5/98	GW05835TE	Vanadium	0 6	ug/L	U	0 6	
70393	3/5/98	GW05835TE	Zinc	6 4	ug/L	B		UJ1
70393	6/22/98	GW06036TE	Aluminum	3 9	ug/L	B		
70393	6/22/98	GW06036TE	Antimony	0 25	ug/L	B		
70393	6/22/98	GW06036TE	Arsenic	0 4	ug/L	U		
70393	6/22/98	GW06036TE	Barium	97 6	ug/L	B		
70393	6/22/98	GW06036TE	Beryllium	0 02	ug/L	U		
70393	6/22/98	GW06036TE	Cadmium	0 19	ug/L	B		
70393	6/22/98	GW06036TE	Calcium	31700	ug/L			
70393	6/22/98	GW06036TE	Chromium	0 25	ug/L	B		
70393	6/22/98	GW06036TE	Cobalt	0 93	ug/L	B		
70393	6/22/98	GW06036TE	Copper	0 79	ug/L	B		
70393	6/22/98	GW06036TE	Iron	31 9	ug/L	B		
70393	6/22/98	GW06036TE	Lead	0 05	ug/L	U		
70393	6/22/98	GW06036TE	Lithium	17 9	ug/L	B		
70393	6/22/98	GW06036TE	Magnesium	7570	ug/L			
70393	6/22/98	GW06036TE	Manganese	0 71	ug/L	B		
70393	6/22/98	GW06036TE	Mercury	0 1	ug/L	U		
70393	6/22/98	GW06036TE	Molybdenum	2	ug/L	B		
70393	6/22/98	GW06036TE	Nickel	9 5	ug/L	B		
70393	6/22/98	GW06036TE	Potassium	1170	ug/L	B		
70393	6/22/98	GW06036TE	Selenium	2 9	ug/L			
70393	6/22/98	GW06036TE	Silver	4 2	ug/L			
70393	6/22/98	GW06036TE	Sodium	15400	ug/L			
70393	6/22/98	GW06036TE	Strontium	235	ug/L			
70393	6/22/98	GW06036TE	Thallium	0 21	ug/L	B		
70393	6/22/98	GW06036TE	Tin	2	ug/L	B		
70393	6/22/98	GW06036TE	Vanadium	1	ug/L	U		
70393	6/22/98	GW06036TE	Zinc	12 9	ug/L	B		
70393	8/26/98	GW05990TE	Aluminum	19 1	ug/L		14 2	
70393	8/26/98	GW05990TE	Antimony	1 4	ug/L		0 8	
70393	8/26/98	GW05990TE	Arsenic	1 5	ug/L		2 8	
70393	8/26/98	GW05990TE	Barium	60	ug/L	B	0 3	
70393	8/26/98	GW05990TE	Beryllium	0 02	ug/L	U	0 1	
70393	8/26/98	GW05990TE	Cadmium	0 1	ug/L	U	0 4	
70393	8/26/98	GW05990TE	Calcium	20300	ug/L		4 7	
70393	8/26/98	GW05990TE	Chromium	0 45	ug/L	B	0 6	
70393	8/26/98	GW05990TE	Cobalt	0 18	ug/L	U	0 7	
70393	8/26/98	GW05990TE	Copper	0 36	ug/L	B	0 8	
70393	8/26/98	GW05990TE	Iron	9 6	ug/L	B	13 9	
70393	8/26/98	GW05990TE	Lead	0 42	ug/L	U	1 7	
70393	8/26/98	GW05990TE	Lithium	5 8	ug/L	B	11 5	
70393	8/26/98	GW05990TE	Magnesium	4170	ug/L	B	3 9	
70393	8/26/98	GW05990TE	Manganese	2 4	ug/L	B	2 5	
70393	8/26/98	GW05990TE	Mercury	0 1	ug/L	U	0 1	
70393	8/26/98	GW05990TE	Molybdenum	0 22	ug/L	U	0 9	
70393	8/26/98	GW05990TE	Nickel	1 5	ug/L	B	1 5	
70393	8/26/98	GW05990TE	Potassium	572	ug/L	B	18 2	
70393	8/26/98	GW05990TE	Selenium	0 9	ug/L	U	3 6	

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Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
70393	8/26/98	GW05990TE	Silver	0 02	ug/L	U	0 1	
70393	8/26/98	GW05990TE	Sodium	13200	ug/L		26 4	
70393	8/26/98	GW05990TE	Strontium	112	ug/L	B	0 1	
70393	8/26/98	GW05990TE	Thallium	0 15	ug/L	U	0 6	
70393	8/26/98	GW05990TE	Tin	0 78	ug/L	U	3 1	
70393	8/26/98	GW05990TE	Vanadium	0 16	ug/L	B	0 6	
70393	8/26/98	GW05990TE	Zinc	6 4	ug/L	B	0 6	
70393	12/14/98	GW06190TE	Aluminum	19 5	ug/L		6 5	V1
70393	12/14/98	GW06190TE	Antimony	2	ug/L	U	2 0	V1
70393	12/14/98	GW06190TE	Arsenic	1 5	ug/L	U	1 5	V1
70393	12/14/98	GW06190TE	Barium	56 2	ug/L	B	0 50	V1
70393	12/14/98	GW06190TE	Beryllium	0 5	ug/L	U	0 50	V1
70393	12/14/98	GW06190TE	Cadmium	0 5	ug/L	U	0 50	V1
70393	12/14/98	GW06190TE	Calcium	18000	ug/L		16 0	V1
70393	12/14/98	GW06190TE	Chromium	0 5	ug/L	U	0 50	V1
70393	12/14/98	GW06190TE	Cobalt	1 5	ug/L	U	1 5	V1
70393	12/14/98	GW06190TE	Copper	1 3	ug/L	B	0 50	V1
70393	12/14/98	GW06190TE	Iron	35 5	ug/L	B	6 0	V1
70393	12/14/98	GW06190TE	Lead	1	ug/L	U	1 0	V1
70393	12/14/98	GW06190TE	Lithium	17	ug/L	B	1 0	J1
70393	12/14/98	GW06190TE	Magnesium	3490	ug/L	B	23 5	V1
70393	12/14/98	GW06190TE	Manganese	3 6	ug/L	B*	0 50	J1
70393	12/14/98	GW06190TE	Mercury	0 1	ug/L	U	0 10	V1
70393	12/14/98	GW06190TE	Molybdenum	1	ug/L	U	1 0	V1
70393	12/14/98	GW06190TE	Nickel	2	ug/L	B	0 50	V1
70393	12/14/98	GW06190TE	Potassium	465	ug/L	B	18 0	V1
70393	12/14/98	GW06190TE	Selenium	2	ug/L	U	2 0	J1
70393	12/14/98	GW06190TE	Silver	0 05	ug/L	U	0 05	V1
70393	12/14/98	GW06190TE	Sodium	10900	ug/L	BE	4 5	J1
70393	12/14/98	GW06190TE	Strontium	100	ug/L	B	0 50	V1
70393	12/14/98	GW06190TE	Thallium	0 5	ug/L	B	0 15	UJ1
70393	12/14/98	GW06190TE	Tin	2	ug/L	U	2 0	V1
70393	12/14/98	GW06190TE	Vanadium	0 68	ug/L	B	0 50	V1
70393	12/14/98	GW06190TE	Zinc	7 7	ug/L	B*	2 0	UJ1
70493	2/25/98	GW05837TE	Aluminum	46 6	ug/L	B		
70493	2/25/98	GW05837TE	Antimony	1 5	ug/L	B		
70493	2/25/98	GW05837TE	Arsenic	1 6	ug/L	U		
70493	2/25/98	GW05837TE	Barium	86 1	ug/L	B		
70493	2/25/98	GW05837TE	Beryllium	0 2	ug/L	U	0 2	
70493	2/25/98	GW05837TE	Cadmium	0 82	ug/L	B		
70493	2/25/98	GW05837TE	Calcium	28500	ug/L			
70493	2/25/98	GW05837TE	Chromium	0 71	ug/L	B		
70493	2/25/98	GW05837TE	Cobalt	0 5	ug/L	U	0 5	
70493	2/25/98	GW05837TE	Copper	0 7	ug/L	U	0 7	
70493	2/25/98	GW05837TE	Iron	16 9	ug/L	U		
70493	2/25/98	GW05837TE	Lead	1 2	ug/L	U		
70493	2/25/98	GW05837TE	Lithium	13 8	ug/L	B		
70493	2/25/98	GW05837TE	Magnesium	6650	ug/L			
70493	2/25/98	GW05837TE	Manganese	0 77	ug/L	B		
70493	2/25/98	GW05837TE	Mercury	0 16	ug/L	B		

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Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
70493	2/25/98	GW05837TE	Molybdenum	2 2	ug/L	B		
70493	2/25/98	GW05837TE	Nickel	0 62	ug/L	B		
70493	2/25/98	GW05837TE	Potassium	1380	ug/L	BE		
70493	2/25/98	GW05837TE	Selenium	4 4	ug/L	B		
70493	2/25/98	GW05837TE	Silver	1 3	ug/L	B		
70493	2/25/98	GW05837TE	Sodium	15100	ug/L			
70493	2/25/98	GW05837TE	Strontium	213	ug/L			
70493	2/25/98	GW05837TE	Thallium	2 3	ug/L	U		
70493	2/25/98	GW05837TE	Tin	1 7	ug/L	U		
70493	2/25/98	GW05837TE	Vanadium	0 6	ug/L	U	0 6	
70493	2/25/98	GW05837TE	Zinc	8 3	ug/L	B		
70493	6/22/98	GW06036TE	Aluminum	7 2	ug/L	B		
70493	6/22/98	GW06036TE	Antimony	0 3	ug/L	B		
70493	6/22/98	GW06036TE	Arsenic	0 4	ug/L	U		
70493	6/22/98	GW06036TE	Barium	56 2	ug/L	B		
70493	6/22/98	GW06036TE	Beryllium	0 04	ug/L	U		
70493	6/22/98	GW06036TE	Cadmium	0 16	ug/L	B		
70493	6/22/98	GW06036TE	Calcium	19600	ug/L			
70493	6/22/98	GW06036TE	Chromium	3 3	ug/L			
70493	6/22/98	GW06036TE	Cobalt	0 59	ug/L	B		
70493	6/22/98	GW06036TE	Copper	8 3	ug/L			
70493	6/22/98	GW06036TE	Iron	8060	ug/L			
70493	6/22/98	GW06036TE	Lead	1 2	ug/L			
70493	6/22/98	GW06036TE	Lithium	9 2	ug/L	B		
70493	6/22/98	GW06036TE	Magnesium	3920	ug/L	B		
70493	6/22/98	GW06036TE	Manganese	32 6	ug/L			
70493	6/22/98	GW06036TE	Mercury	0 1	ug/L	U		
70493	6/22/98	GW06036TE	Molybdenum	1	ug/L	U		
70493	6/22/98	GW06036TE	Nickel	7	ug/L	B		
70493	6/22/98	GW06036TE	Potassium	413	ug/L	B		
70493	6/22/98	GW06036TE	Selenium	0 2	ug/L	U		
70493	6/22/98	GW06036TE	Silver	0 07	ug/L	B		
70493	6/22/98	GW06036TE	Sodium	12300	ug/L			
70493	6/22/98	GW06036TE	Strontium	106	ug/L	B		
70493	6/22/98	GW06036TE	Thallium	0 15	ug/L	U		
70493	6/22/98	GW06036TE	Tin	1 5	ug/L	U		
70493	6/22/98	GW06036TE	Vanadium	1	ug/L	U		
70493	6/22/98	GW06036TE	Zinc	34 8	ug/L			
70493	8/20/98	GW05992TE	Aluminum	11 1	ug/L	EB	0 25	
70493	8/20/98	GW05992TE	Antimony	0 34	ug/L	B	0 1	
70493	8/20/98	GW05992TE	Arsenic	0 4	ug/L	U	0 4	
70493	8/20/98	GW05992TE	Barium	96 4	ug/L		0 5	
70493	8/20/98	GW05992TE	Beryllium	0 02	ug/L	U	0	
70493	8/20/98	GW05992TE	Cadmium	0 14	ug/L	NB	0 05	
70493	8/20/98	GW05992TE	Calcium	28400	ug/L		13 5	
70493	8/20/98	GW05992TE	Chromium	0 03	ug/L	U	0 05	
70493	8/20/98	GW05992TE	Cobalt	0 5	ug/L	U	0 5	
70493	8/20/98	GW05992TE	Copper	0 47	ug/L	B	0 3	
70493	8/20/98	GW05992TE	Iron	17 5	ug/L	U	17 5	
70493	8/20/98	GW05992TE	Lead	0 95	ug/L	B	0 05	

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Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
70493	8/20/98	GW05992TE	Lithium	12.8	ug/L	B	1	
70493	8/20/98	GW05992TE	Magnesium	6690	ug/L	B	60	
70493	8/20/98	GW05992TE	Manganese	0.9	ug/L	B	0.5	
70493	8/20/98	GW05992TE	Mercury	0.2	ug/L	U	0.2	
70493	8/20/98	GW05992TE	Molybdenum	1.3	ug/L	B	1	
70493	8/20/98	GW05992TE	Nickel	0.83	ug/L	B	0.5	
70493	8/20/98	GW05992TE	Potassium	1080	ug/L	NB	18	
70493	8/20/98	GW05992TE	Selenium	0.94	ug/L	NB	0.2	
70493	8/20/98	GW05992TE	Silver	0.17	ug/L		0.05	
70493	8/20/98	GW05992TE	Sodium	14100	ug/L		22.5	
70493	8/20/98	GW05992TE	Strontium	203	ug/L		0.5	
70493	8/20/98	GW05992TE	Thallium	0.15	ug/L	NU	0.15	
70493	8/20/98	GW05992TE	Tin	1.5	ug/L	U	1.5	
70493	8/20/98	GW05992TE	Vanadium	1	ug/L	U	1	
70493	8/20/98	GW05992TE	Zinc	6.1	ug/L	B	1	
70493	11/18/98	GW06187TE	Aluminum	4.5	ug/L	U	4.5	V1
70493	11/18/98	GW06187TE	Antimony	2	ug/L	U	2.0	V1
70493	11/18/98	GW06187TE	Arsenic	2	ug/L	U	2.0	V1
70493	11/18/98	GW06187TE	Barium	88.1	ug/L	B	0.50	V1
70493	11/18/98	GW06187TE	Beryllium	0.5	ug/L	U	0.50	V1
70493	11/18/98	GW06187TE	Cadmium	0.5	ug/L	U	0.50	V1
70493	11/18/98	GW06187TE	Calcium	27100	ug/L		6.5	V1
70493	11/18/98	GW06187TE	Chromium	0.5	ug/L	U	0.50	V1
70493	11/18/98	GW06187TE	Cobalt	1	ug/L	U	1.0	V1
70493	11/18/98	GW06187TE	Copper	0.61	ug/L	B	0.50	UJ1
70493	11/18/98	GW06187TE	Iron	9.5	ug/L	U	9.5	V1
70493	11/18/98	GW06187TE	Lead	1	ug/L	U	1.0	V1
70493	11/18/98	GW06187TE	Lithium	13.5	ug/L	B	1.0	V1
70493	11/18/98	GW06187TE	Magnesium	6460	ug/L		36.0	V1
70493	11/18/98	GW06187TE	Manganese	0.5	ug/L	U	0.50	V1
70493	11/18/98	GW06187TE	Mercury	0.1	ug/L	UN	0.10	R1
70493	11/18/98	GW06187TE	Molybdenum	1.3	ug/L	B	1.0	V1
70493	11/18/98	GW06187TE	Nickel	0.52	ug/L	B	0.50	V1
70493	11/18/98	GW06187TE	Potassium	1130	ug/L	B	18.0	V1
70493	11/18/98	GW06187TE	Selenium	2	ug/L	U	2.0	J1
70493	11/18/98	GW06187TE	Silver	0.05	ug/L	U	0.05	J1
70493	11/18/98	GW06187TE	Sodium	14700	ug/L		52.0	V1
70493	11/18/98	GW06187TE	Strontium	200	ug/L		7.0	V1
70493	11/18/98	GW06187TE	Thallium	0.22	ug/L	B	0.15	UJ1
70493	11/18/98	GW06187TE	Tin	2	ug/L	U	2.0	V1
70493	11/18/98	GW06187TE	Vanadium	1	ug/L	U	1.0	V1
70493	11/18/98	GW06187TE	Zinc	7.9	ug/L	B	1.0	UJ1
B206989	2/24/98	GW05840TE	Aluminum	52.3	ug/L	B		
B206989	2/24/98	GW05840TE	Antimony	1.4	ug/L	U		
B206989	2/24/98	GW05840TE	Arsenic	2.8	ug/L	B		
B206989	2/24/98	GW05840TE	Barium	14.6	ug/L	B		
B206989	2/24/98	GW05840TE	Beryllium	0.2	ug/L	U	0.2	
B206989	2/24/98	GW05840TE	Cadmium	0.86	ug/L	B		
B206989	2/24/98	GW05840TE	Calcium	393000	ug/L			
B206989	2/24/98	GW05840TE	Chromium	0.4	ug/L	U	0.4	

Appendix B: Groundwater Analytical Data
Metals

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
B206989	2/24/98	GW05840TE	Cobalt	0.68	ug/L	B		
B206989	2/24/98	GW05840TE	Copper	2.7	ug/L	B		
B206989	2/24/98	GW05840TE	Iron	84.5	ug/L	U		
B206989	2/24/98	GW05840TE	Lead	1.2	ug/L	U		
B206989	2/24/98	GW05840TE	Lithium	841	ug/L			
B206989	2/24/98	GW05840TE	Magnesium	146000	ug/L			
B206989	2/24/98	GW05840TE	Manganese	0.5	ug/L	U	0.5	
B206989	2/24/98	GW05840TE	Mercury	0.1	ug/L	U	0.1	
B206989	2/24/98	GW05840TE	Molybdenum	3.2	ug/L	B		
B206989	2/24/98	GW05840TE	Nickel	4.6	ug/L	B		
B206989	2/24/98	GW05840TE	Potassium	18100	ug/L	E		
B206989	2/24/98	GW05840TE	Selenium	193	ug/L			
B206989	2/24/98	GW05840TE	Silver	0.3	ug/L	U	0.3	
B206989	2/24/98	GW05840TE	Sodium	511000	ug/L			
B206989	2/24/98	GW05840TE	Strontium	4760	ug/L			
B206989	2/24/98	GW05840TE	Thallium	2.3	ug/L	U		
B206989	2/24/98	GW05840TE	Tin	1.7	ug/L	U		
B206989	2/24/98	GW05840TE	Vanadium	0.6	ug/L	U	0.6	
B206989	2/24/98	GW05840TE	Zinc	7.6	ug/L	B		
B206989	11/16/98	GW06172TE	Aluminum	4.5	ug/L	U	4.5	V1
B206989	11/16/98	GW06172TE	Antimony	2	ug/L	U	2.0	V1
B206989	11/16/98	GW06172TE	Arsenic	2.8	ug/L	B	2.0	V1
B206989	11/16/98	GW06172TE	Barium	16.8	ug/L	B	0.50	V1
B206989	11/16/98	GW06172TE	Beryllium	0.5	ug/L	U	0.50	V1
B206989	11/16/98	GW06172TE	Cadmium	0.5	ug/L	U	0.50	V1
B206989	11/16/98	GW06172TE	Calcium	501000	ug/L		32.5	V1
B206989	11/16/98	GW06172TE	Chromium	0.5	ug/L	U	0.50	V1
B206989	11/16/98	GW06172TE	Cobalt	1	ug/L	U	1.0	V1
B206989	11/16/98	GW06172TE	Copper	4.4	ug/L		0.50	UJ1
B206989	11/16/98	GW06172TE	Iron	9.5	ug/L	U	9.5	V1
B206989	11/16/98	GW06172TE	Lead	1	ug/L	U	1.0	V1
B206989	11/16/98	GW06172TE	Lithium	544	ug/L		1.0	V1
B206989	11/16/98	GW06172TE	Magnesium	176000	ug/L		36.0	V1
B206989	11/16/98	GW06172TE	Manganese	0.5	ug/L	U	0.50	V1
B206989	11/16/98	GW06172TE	Mercury	0.1	ug/L	UN	0.10	R1
B206989	11/16/98	GW06172TE	Molybdenum	3.6	ug/L	B	1.0	V1
B206989	11/16/98	GW06172TE	Nickel	4.6	ug/L	B	0.50	V1
B206989	11/16/98	GW06172TE	Potassium	19800	ug/L		18.0	V1
B206989	11/16/98	GW06172TE	Selenium	245	ug/L		2.0	V1
B206989	11/16/98	GW06172TE	Silver	0.05	ug/L	U	0.05	J1
B206989	11/16/98	GW06172TE	Sodium	734000	ug/L		2600	V1
B206989	11/16/98	GW06172TE	Strontium	6060	ug/L		7.0	V1
B206989	11/16/98	GW06172TE	Thallium	0.68	ug/L	B	0.15	UJ1
B206989	11/16/98	GW06172TE	Tin	2	ug/L	U	2.0	V1
B206989	11/16/98	GW06172TE	Vanadium	1	ug/L	U	1.0	V1
B206989	11/16/98	GW06172TE	Zinc	11.7	ug/L	B	1.0	UJ1

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Appendix B3: Radionuclides

Appendix B Groundwater Analytical Data

Radionuclides

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
4087	2/24/98	GW05821TE	Tritium	-159 2278	pCi/L	U		
4087	2/24/98	GW05821TE	Uranium-233/23	14 2	pCi/L			V1
4087	2/24/98	GW05821TE	Uranium-235	0 518	pCi/L	J		V1
4087	2/24/98	GW05821TE	Uranium-238	10 5	pCi/L			V1
4087	6/1/98	GW05969TE	Tritium	131 9107	pCi/L	U		
4087	6/1/98	GW05969TE	Uranium-233/23	18 8086	pCi/L		0 0743	
4087	6/1/98	GW05969TE	Uranium-235	1 0429	pCi/L		0 0238	
4087	6/1/98	GW05969TE	Uranium-238	13 9974	pCi/L		0 0529	
52894	5/26/98	GW05976TE	Tritium	0	pCi/L	U		
52894	5/26/98	GW05976TE	Uranium-233/23	19 6789	pCi/L		1359	
52894	5/26/98	GW05976TE	Uranium-235	1 0333	pCi/L		062	
52894	5/26/98	GW05976TE	Uranium-238	14 6758	pCi/L		062	
52894	8/25/98	GW06045TE	Tritium	-213	pCi/L		360 0	
52894	8/25/98	GW06045TE	Uranium-233/23	16 5	pCi/L		0 122	
52894	8/25/98	GW06045TE	Uranium-235	0 813	pCi/L		0 085	
52894	8/25/98	GW06045TE	Uranium-238	11 4	pCi/L		0 068	
5887	3/5/98	GW05826TE	Tritium	2 3E+02	pCi/L	U		V1
5887	3/5/98	GW05826TE	Uranium-233/23	0 092	pCi/L	U		
5887	3/5/98	GW05826TE	Uranium-235	-0 003	pCi/L	U		
5887	3/5/98	GW05826TE	Uranium-238	0 048	pCi/L	U		
5887	5/26/98	GW05980TE	Tritium	0	pCi/L	U		
5887	5/26/98	GW05980TE	Uranium-233/23	0919	pCi/L	U	1208	
5887	5/26/98	GW05980TE	Uranium-235	0008	pCi/L	U	148	
5887	5/26/98	GW05980TE	Uranium-238	0056	pCi/L	U	1356	
5887	8/31/98	GW06043TE	Tritium	-324	pCi/L		329 0	
5887	8/31/98	GW06043TE	Uranium-233/23	0 0462	pCi/L	U	0 1345	
5887	8/31/98	GW06043TE	Uranium-235	0 00628	pCi/L	U	0 0799	
5887	8/31/98	GW06043TE	Uranium-238	0 0598	pCi/L	U	0 1345	
5887	12/14/98	GW06151TE	Tritium	200	pCi/L	U	2 8E+02	V1
5887	12/14/98	GW06151TE	Uranium-233/23	0 071	pCi/L	J	0 064	V1
5887	12/14/98	GW06151TE	Uranium-235	0 000	pCi/L	U	0 079	V1
5887	12/14/98	GW06151TE	Uranium-238	0 037	pCi/L	U	0 114	V1
70193	2/26/98	GW05832TE	Tritium	-15 03	pCi/L	U		
70193	2/26/98	GW05832TE	Uranium-233/23	0 025	pCi/L	U		V1
70193	2/26/98	GW05832TE	Uranium-235	0 018	pCi/L	U		V1
70193	2/26/98	GW05832TE	Uranium-238	0 367	pCi/L	J		V1
70193	6/22/98	GW06034TE	Tritium	-49 5177	pCi/L	U		
70193	6/22/98	GW06034TE	Uranium-233/23	0535	pCi/L	U	1803	
70193	6/22/98	GW06034TE	Uranium-235	- 0136	pCi/L	U	1257	
70193	6/22/98	GW06034TE	Uranium-238	0286	pCi/L	U	112	
70193	7/14/98	GW05987TE	Tritium	-16	pCi/L		212 0	
70193	7/14/98	GW05987TE	Uranium-233/23	0 0926	pCi/L	U	0 1446	
70193	7/14/98	GW05987TE	Uranium-235	0 0386	pCi/L	U	0 093	
70193	7/14/98	GW05987TE	Uranium-238	0 085	pCi/L	U	0 093	
70193	11/30/98	GW06180TE	Tritium	110	pCi/L	U	2 8E+02	
70193	11/30/98	GW06180TE	Uranium-233/23	0 100	pCi/L	J	0 068	V
70193	11/30/98	GW06180TE	Uranium-235	0 031	pCi/L	U	0 083	V
70193	11/30/98	GW06180TE	Uranium-238	0 238	pCi/L	J	0 120	V
70393	3/5/98	GW05835TE	Tritium	7 2E+01	pCi/L	U		V1

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Appendix B Groundwater Analytical Data

Radionuclides

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
70393	3/5/98	GW05835TE	Uranium-233/23	0 042	pCi/L	U		
70393	3/5/98	GW05835TE	Uranium-235	0 006	pCi/L	U		
70393	3/5/98	GW05835TE	Uranium-238	0 037	pCi/L	U		
70393	6/24/98	GW06035TE	Tritium	-17 6946	pCi/L	U		
70393	6/24/98	GW06035TE	Uranium-233/23	0637	pCi/L	U	0846	
70393	6/24/98	GW06035TE	Uranium-235	0428	pCi/L	U	1006	
70393	6/24/98	GW06035TE	Uranium-238	0508	pCi/L	J	0459	
70393	8/26/98	GW05990TE	Tritium	-200	pCi/L		339 0	
70393	8/26/98	GW05990TE	Uranium-233/23	0 095	pCi/L		0 128	
70393	8/26/98	GW05990TE	Uranium-235	0 005	pCi/L		0 187	
70393	8/26/98	GW05990TE	Uranium-238	0 265	pCi/L		0 072	
70393	12/14/98	GW06190TE	Tritium	0	pCi/L	U	2 8E+02	V1
70393	12/14/98	GW06190TE	Uranium-233/23	0 046	pCi/L	U	0 062	V1
70393	12/14/98	GW06190TE	Uranium-235	0 000	pCi/L	U	0 076	V1
70393	12/14/98	GW06190TE	Uranium-238	0 049	pCi/L	U	0 129	V1
70493	2/25/98	GW05837TE	Tritium	-100 2886	pCi/L	U		
70493	2/25/98	GW05837TE	Uranium-233/23	1 56	pCi/L			V1
70493	2/25/98	GW05837TE	Uranium-235	0 044	pCi/L	U		V1
70493	2/25/98	GW05837TE	Uranium-238	0 910	pCi/L	J		V1
70493	6/22/98	GW06036TE	Tritium	-107 8967	pCi/L	U		
70493	6/22/98	GW06036TE	Uranium-233/23	1 3476	pCi/L		0537	
70493	6/22/98	GW06036TE	Uranium-235	1693	pCi/L	J	1176	
70493	6/22/98	GW06036TE	Uranium-238	7285	pCi/L	J	0989	
70493	8/20/98	GW05992TE	Tritium	-267	pCi/L		339 0	
70493	8/20/98	GW05992TE	Uranium-233/23	1 12	pCi/L		0 134	
70493	8/20/98	GW05992TE	Uranium-235	-0 014	pCi/L		0 165	
70493	8/20/98	GW05992TE	Uranium-238	0 579	pCi/L		0 075	
70493	11/18/98	GW06187TE	Tritium	-71	pCi/L	U	2 7E+02	V
70493	11/18/98	GW06187TE	Uranium-233/23	1 15	pCi/L	B	0 063	V1
70493	11/18/98	GW06187TE	Uranium-235	0 017	pCi/L	U	0 140	V1
70493	11/18/98	GW06187TE	Uranium-238	0 503	pCi/L	J	0 113	V1
B206989	2/24/98	GW05840TE	Tritium	-235 337	pCi/L	U		
B206989	6/2/98	GW05997TE	Tritium	0	pCi/L	U		
B206989	6/2/98	GW05997TE	Uranium-233/23	43 8437	pCi/L		0 0772	
B206989	6/2/98	GW05997TE	Uranium-235	2 0802	pCi/L		0 0627	
B206989	6/2/98	GW05997TE	Uranium-238	27 7261	pCi/L		0 0881	
B206989	8/25/98	GW06048TE	Tritium	-256	pCi/L		325 0	

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Appendix B4: Volatile Organic Compounds

Appendix B Groundwater Analytical Data

Volatile Organic Compounds

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
4087	2/24/98	GW05821TE	1,1,1,2-Tetrachloroethane	0.5	ug/L	U		
4087	2/24/98	GW05821TE	1,1,1-Trichloroethane	0.5	ug/L	U		
4087	2/24/98	GW05821TE	1,1,2,2-Tetrachloroethane	0.5	ug/L	U		
4087	2/24/98	GW05821TE	1,1,2-Trichloroethane	0.5	ug/L	U		
4087	2/24/98	GW05821TE	1,1-Dichloroethane	0.5	ug/L	U		
4087	2/24/98	GW05821TE	1,1-Dichloroethene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	1,1-Dichloropropene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	1,2,3-Trichlorobenzene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	1,2,3-Trichloropropane	0.5	ug/L	U		
4087	2/24/98	GW05821TE	1,2,4-Trichlorobenzene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	1,2,4-Trimethylbenzene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	1,2-Dibromo-3-chloropropane	0.5	ug/L	U		
4087	2/24/98	GW05821TE	1,2-Dibromoethane	0.5	ug/L	U		
4087	2/24/98	GW05821TE	1,2-Dichlorobenzene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	1,2-Dichloroethane	0.5	ug/L	U		
4087	2/24/98	GW05821TE	1,2-Dichloropropane	0.5	ug/L	U		
4087	2/24/98	GW05821TE	1,3,5-Trimethylbenzene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	1,3-Dichlorobenzene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	1,3-Dichloropropane	0.5	ug/L	U		
4087	2/24/98	GW05821TE	1,4-Dichlorobenzene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	2,2-Dichloropropane	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Benzene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Bromobenzene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Bromochloromethane	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Bromodichloromethane	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Bromoform	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Bromomethane	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Carbon Tetrachloride	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Chlorobenzene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Chloroethane	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Chloroform	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Chloromethane	0.5	ug/L	U		
4087	2/24/98	GW05821TE	cis-1,2-Dichloroethene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	cis-1 3-Dichloropropene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Dibromochloromethane	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Dibromomethane	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Dichlorodifluoromethane	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Ethylbenzene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Hexachlorobutadiene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Isopropylbenzene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	m/p-Xylene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Methylene Chloride	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Naphthalene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	n-Butylbenzene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	n-Propylbenzene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	o-Chlorotoluene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	o-Xylene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	p-Chlorotoluene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	p-Isopropyltoluene	0.5	ug/L	U		

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Appendix B. Groundwater Analytical Data
Volatile Organic Compounds

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
4087	2/24/98	GW05821TE	sec-Butylbenzene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Styrene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	tert-Butylbenzene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Tetrachloroethene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Toluene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	trans-1,2-Dichloroethene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	trans-1,3-Dichloropropene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Trichloroethene	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Trichlorofluoromethane	0.5	ug/L	U		
4087	2/24/98	GW05821TE	Vinyl Chloride	0.5	ug/L	U		
4087	6/1/98	GW05969TE	1,1,1,2-Tetrachloroethane	1	ug/L	U	1	
4087	6/1/98	GW05969TE	1,1,1-Trichloroethane	1	ug/L	U	1	
4087	6/1/98	GW05969TE	1,1,2,2-Tetrachloroethane	1	ug/L	U	1	
4087	6/1/98	GW05969TE	1,1,2-Trichloroethane	1	ug/L	U	1	
4087	6/1/98	GW05969TE	1,1-Dichloroethane	1	ug/L	U	1	
4087	6/1/98	GW05969TE	1,1-Dichloroethene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	1,1-Dichloropropene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	1,2,3-Trichlorobenzene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	1,2,3-Trichloropropane	1	ug/L	U	1	
4087	6/1/98	GW05969TE	1,2,4-Trichlorobenzene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	1,2,4-Trimethylbenzene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	1,2-Dibromo-3-chloropropane	1	ug/L	U	1	
4087	6/1/98	GW05969TE	1,2-Dibromoethane	1	ug/L	U	1	
4087	6/1/98	GW05969TE	1,2-Dichlorobenzene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	1,2-Dichloroethane	1	ug/L	U	1	
4087	6/1/98	GW05969TE	1,2-Dichloropropane	1	ug/L	U	1	
4087	6/1/98	GW05969TE	1,3,5-Trimethylbenzene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	1,3-Dichlorobenzene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	1,3-Dichloropropane	1	ug/L	U	1	
4087	6/1/98	GW05969TE	1,4-Dichlorobenzene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	2,2-Dichloropropane	1	ug/L	U	1	
4087	6/1/98	GW05969TE	Benzene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	Bromobenzene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	Bromochloromethane	1	ug/L	U	1	
4087	6/1/98	GW05969TE	Bromodichloromethane	1	ug/L	U	1	
4087	6/1/98	GW05969TE	Bromoform	1	ug/L	U	1	
4087	6/1/98	GW05969TE	Bromomethane	1	ug/L	U	1	
4087	6/1/98	GW05969TE	Carbon Tetrachloride	1	ug/L	U	1	
4087	6/1/98	GW05969TE	Chlorobenzene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	Chloroethane	1	ug/L	U	1	
4087	6/1/98	GW05969TE	Chloroform	1	ug/L	U	1	
4087	6/1/98	GW05969TE	Chloromethane	1	ug/L	U	1	
4087	6/1/98	GW05969TE	cis-1,2-Dichloroethene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	cis-1,3-Dichloropropene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	Dibromochloromethane	1	ug/L	U	1	
4087	6/1/98	GW05969TE	Dibromomethane	1	ug/L	U	1	
4087	6/1/98	GW05969TE	Dichlorodifluoromethane	1	ug/L	U	1	
4087	6/1/98	GW05969TE	Ethylbenzene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	Hexachlorobutadiene	1	ug/L	U	1	

Appendix B Groundwater Analytical Data

Volatile Organic Compounds

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
4087	6/1/98	GW05969TE	Isopropylbenzene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	m/p-Xylene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	Methylene Chloride	1	ug/L	U	1	
4087	6/1/98	GW05969TE	Naphthalene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	n-Butylbenzene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	n-Propylbenzene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	o-Chlorotoluene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	o-Xylene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	p-Chlorotoluene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	p-Isopropyltoluene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	sec-Butylbenzene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	Styrene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	tert-Butylbenzene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	Tetrachloroethene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	Toluene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	trans-1,2-Dichloroethene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	trans-1,3-Dichloropropene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	Trichloroethene	1	ug/L	U	1	
4087	6/1/98	GW05969TE	Trichlorofluoromethane	1	ug/L	U	1	
4087	6/1/98	GW05969TE	Vinyl Chloride	1	ug/L	U	1	
4087	8/26/98	GW06042TE	1,1,1,2-Tetrachloroethane	1	ug/L	U	1	
4087	8/26/98	GW06042TE	1,1,1-Trichloroethane	1	ug/L	U	1	
4087	8/26/98	GW06042TE	1,1,2,2-Tetrachloroethane	1	ug/L	U	1	
4087	8/26/98	GW06042TE	1,1,2-Trichloroethane	1	ug/L	U	1	
4087	8/26/98	GW06042TE	1,1-Dichloroethane	1	ug/L	U	1	
4087	8/26/98	GW06042TE	1,1-Dichloroethene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	1,1-Dichloropropene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	1,2,3-Trichlorobenzene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	1,2,3-Trichloropropane	1	ug/L	U	1	
4087	8/26/98	GW06042TE	1,2,4-Trichlorobenzene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	1,2,4-Trimethylbenzene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	1,2-Dibromo-3-chloropropane	1	ug/L	U	1	R1
4087	8/26/98	GW06042TE	1,2-Dibromoethane	1	ug/L	U	1	
4087	8/26/98	GW06042TE	1,2-Dichlorobenzene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	1,2-Dichloroethane	1	ug/L	U	1	
4087	8/26/98	GW06042TE	1,2-Dichloropropane	1	ug/L	U	1	
4087	8/26/98	GW06042TE	1,3,5-Trimethylbenzene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	1,3-Dichlorobenzene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	1,3-Dichloropropane	1	ug/L	U	1	
4087	8/26/98	GW06042TE	1,4-Dichlorobenzene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	2,2-Dichloropropane	1	ug/L	U	1	
4087	8/26/98	GW06042TE	Benzene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	Bromobenzene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	Bromochloromethane	1	ug/L	U	1	
4087	8/26/98	GW06042TE	Bromodichloromethane	1	ug/L	U	1	
4087	8/26/98	GW06042TE	Bromoform	1	ug/L	U	1	
4087	8/26/98	GW06042TE	Bromomethane	1	ug/L	U	1	
4087	8/26/98	GW06042TE	Carbon Tetrachloride	1	ug/L	U	1	
4087	8/26/98	GW06042TE	Chlorobenzene	1	ug/L	U	1	

Appendix B Groundwater Analytical Data

Volatile Organic Compounds

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
4087	8/26/98	GW06042TE	Chloroethane	1	ug/L	U	1	
4087	8/26/98	GW06042TE	Chloroform	1	ug/L	U	1	
4087	8/26/98	GW06042TE	Chloromethane	1	ug/L	U	1	
4087	8/26/98	GW06042TE	cis-1,2-Dichloroethene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	cis-1,3-Dichloropropene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	Dibromochloromethane	1	ug/L	U	1	
4087	8/26/98	GW06042TE	Dibromomethane	1	ug/L	U	1	
4087	8/26/98	GW06042TE	Dichlorodifluoromethane	1	ug/L	U	1	
4087	8/26/98	GW06042TE	Ethylbenzene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	Hexachlorobutadiene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	Isopropylbenzene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	Methylene Chloride	0.6	ug/L	J	1	
4087	8/26/98	GW06042TE	Naphthalene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	n-Butylbenzene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	n-Propylbenzene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	o-Chlorotoluene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	p-Chlorotoluene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	p-Isopropyltoluene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	sec-Butylbenzene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	Styrene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	tert-Butylbenzene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	Tetrachloroethene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	Toluene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	Total Xylenes	1	ug/L	U	1	
4087	8/26/98	GW06042TE	trans-1,2-Dichloroethene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	trans-1,3-Dichloropropene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	Trichloroethene	1	ug/L	U	1	
4087	8/26/98	GW06042TE	Trichlorofluoromethane	1	ug/L	U	1	
4087	8/26/98	GW06042TE	Vinyl Chloride	1	ug/L	U	1	
52894	5/26/98	GW05976TE	1,1,1,2-Tetrachloroethane	1	ug/L	U	1	
52894	5/26/98	GW05976TE	1,1,1-Trichloroethane	1	ug/L	U	1	
52894	5/26/98	GW05976TE	1,1,2,2-Tetrachloroethane	1	ug/L	U	1	
52894	5/26/98	GW05976TE	1,1,2-Trichloroethane	1	ug/L	U	1	
52894	5/26/98	GW05976TE	1,1-Dichloroethane	1	ug/L	U	1	
52894	5/26/98	GW05976TE	1,1-Dichloroethene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	1,1-Dichloropropene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	1,2,3-Trichlorobenzene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	1,2,3-Trichloropropane	1	ug/L	U	1	
52894	5/26/98	GW05976TE	1,2,4-Trichlorobenzene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	1,2,4-Trimethylbenzene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	1,2-Dibromo-3-chloropropane	1	ug/L	U	1	
52894	5/26/98	GW05976TE	1,2-Dibromoethane	1	ug/L	U	1	
52894	5/26/98	GW05976TE	1,2-Dichlorobenzene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	1,2-Dichloroethane	1	ug/L	U	1	
52894	5/26/98	GW05976TE	1,2-Dichloropropane	1	ug/L	U	1	
52894	5/26/98	GW05976TE	1,3,5-Trimethylbenzene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	1,3-Dichlorobenzene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	1,3-Dichloropropane	1	ug/L	U	1	
52894	5/26/98	GW05976TE	1,4-Dichlorobenzene	1	ug/L	U	1	

Appendix B Groundwater Analytical Data
Volatile Organic Compounds

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
52894	5/26/98	GW05976TE	2,2-Dichloropropane	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Benzene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Bromobenzene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Bromochloromethane	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Bromodichloromethane	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Bromoform	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Bromomethane	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Carbon Tetrachloride	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Chlorobenzene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Chloroethane	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Chloroform	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Chloromethane	1	ug/L	U	1	
52894	5/26/98	GW05976TE	cis-1,2-Dichloroethene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	cis-1,3-Dichloropropene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Dibromochloromethane	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Dibromomethane	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Dichlorodifluoromethane	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Ethylbenzene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Hexachlorobutadiene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Isopropylbenzene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Methylene Chloride	6	ug/L	B	1	
52894	5/26/98	GW05976TE	Naphthalene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	n-Butylbenzene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	n-Propylbenzene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	o-Chlorotoluene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	p-Chlorotoluene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	p-Isopropyltoluene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	sec-Butylbenzene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Styrene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	tert-Butylbenzene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Tetrachloroethene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Toluene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Total Xylenes	1	ug/L	U	1	
52894	5/26/98	GW05976TE	trans-1,2-Dichloroethene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	trans-1,3-Dichloropropene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Trichloroethene	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Trichlorofluoromethane	1	ug/L	U	1	
52894	5/26/98	GW05976TE	Vinyl Chloride	1	ug/L	U	1	
52894	8/25/98	GW06045TE	1,1,1,2-Tetrachloroethane	1	ug/L	U	1	
52894	8/25/98	GW06045TE	1,1,1-Trichloroethane	1	ug/L	U	1	
52894	8/25/98	GW06045TE	1,1,2,2-Tetrachloroethane	1	ug/L	U	1	
52894	8/25/98	GW06045TE	1,1,2-Trichloroethane	1	ug/L	U	1	
52894	8/25/98	GW06045TE	1,1-Dichloroethane	1	ug/L	U	1	
52894	8/25/98	GW06045TE	1,1-Dichloroethene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	1,1-Dichloropropene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	1,2,3-Trichlorobenzene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	1,2,3-Trichloropropane	1	ug/L	U	1	
52894	8/25/98	GW06045TE	1,2,4-Trichlorobenzene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	1,2,4-Trimethylbenzene	1	ug/L	U	1	

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Volatile Organic Compounds

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
52894	8/25/98	GW06045TE	1,2-Dibromo-3-chloropropane	1	ug/L	U	1	R1
52894	8/25/98	GW06045TE	1,2-Dibromoethane	1	ug/L	U	1	
52894	8/25/98	GW06045TE	1,2-Dichlorobenzene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	1,2-Dichloroethane	1	ug/L	U	1	
52894	8/25/98	GW06045TE	1,2-Dichloropropane	1	ug/L	U	1	
52894	8/25/98	GW06045TE	1,3,5-Trimethylbenzene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	1,3-Dichlorobenzene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	1,3-Dichloropropane	1	ug/L	U	1	
52894	8/25/98	GW06045TE	1,4-Dichlorobenzene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	2,2-Dichloropropane	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Benzene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Bromobenzene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Bromochloromethane	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Bromodichloromethane	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Bromoform	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Bromomethane	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Carbon Tetrachloride	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Chlorobenzene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Chloroethane	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Chloroform	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Chloromethane	1	ug/L	U	1	
52894	8/25/98	GW06045TE	cis-1,2-Dichloroethene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	cis-1,3-Dichloropropene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Dibromochloromethane	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Dibromomethane	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Dichlorodifluoromethane	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Ethylbenzene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Hexachlorobutadiene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Isopropylbenzene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Methylene Chloride	0.6	ug/L	J	1	
52894	8/25/98	GW06045TE	Naphthalene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	n-Butylbenzene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	n-Propylbenzene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	o-Chlorotoluene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	p-Chlorotoluene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	p-Isopropyltoluene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	sec-Butylbenzene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Styrene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	tert-Butylbenzene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Tetrachloroethene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Toluene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Total Xylenes	1	ug/L	U	1	
52894	8/25/98	GW06045TE	trans-1,2-Dichloroethene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	trans-1,3-Dichloropropene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Trichloroethene	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Trichlorofluoromethane	1	ug/L	U	1	
52894	8/25/98	GW06045TE	Vinyl Chloride	1	ug/L	U	1	
5887	3/5/98	GW05826TE	1,1 1 2-Tetrachloroethane	0.5	ug/L	U		
5887	3/5/98	GW05826TE	1,1 1-Trichloroethane	0.5	ug/L	U		

Appendix B. Groundwater Analytical Data
Volatile Organic Compounds

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
5887	3/5/98	GW05826TE	1,1,2,2-Tetrachloroethane	0.5	ug/L	U		
5887	3/5/98	GW05826TE	1,1,2-Trichloroethane	0.5	ug/L	U		
5887	3/5/98	GW05826TE	1,1-Dichloroethane	0.5	ug/L	U		
5887	3/5/98	GW05826TE	1,1-Dichloroethene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	1,1-Dichloropropene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	1,2,3-Trichlorobenzene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	1,2,3-Trichloropropane	0.5	ug/L	U		
5887	3/5/98	GW05826TE	1,2,4-Trichlorobenzene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	1,2,4-Trimethylbenzene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	1,2-Dibromo-3-chloropropane	0.5	ug/L	U		
5887	3/5/98	GW05826TE	1,2-Dibromoethane	0.5	ug/L	U		
5887	3/5/98	GW05826TE	1,2-Dichlorobenzene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	1,2-Dichloroethane	0.5	ug/L	U		
5887	3/5/98	GW05826TE	1,2-Dichloropropane	0.5	ug/L	U		
5887	3/5/98	GW05826TE	1,3,5-Trimethylbenzene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	1,3-Dichlorobenzene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	1,3-Dichloropropane	0.5	ug/L	U		
5887	3/5/98	GW05826TE	1,4-Dichlorobenzene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	2,2-Dichloropropane	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Benzene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Bromobenzene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Bromochloromethane	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Bromodichloromethane	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Bromoform	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Bromomethane	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Carbon Tetrachloride	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Chlorobenzene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Chloroethane	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Chloroform	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Chloromethane	0.5	ug/L	U		
5887	3/5/98	GW05826TE	cis-1,2-Dichloroethene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	cis-1,3-Dichloropropene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Dibromochloromethane	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Dibromomethane	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Dichlorodifluoromethane	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Ethylbenzene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Hexachlorobutadiene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Isopropylbenzene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	m/p-Xylene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Methylene Chloride	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Naphthalene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	n-Butylbenzene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	n-Propylbenzene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	o-Chlorotoluene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	o-Xylene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	p-Chlorotoluene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	p-Isopropyltoluene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	sec-Butylbenzene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Styrene	0.5	ug/L	U		

Appendix B Groundwater Analytical Data

Volatile Organic Compounds

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
5887	3/5/98	GW05826TE	tert-Butylbenzene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Tetrachloroethene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Toluene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	trans-1,2-Dichloroethene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	trans-1,3-Dichloropropene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Trichloroethene	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Trichlorofluoromethane	0.5	ug/L	U		
5887	3/5/98	GW05826TE	Vinyl Chloride	0.5	ug/L	U		
5887	5/26/98	GW05980TE	1,1,1,2-Tetrachloroethane	1	ug/L	U	1	
5887	5/26/98	GW05980TE	1,1,1-Trichloroethane	1	ug/L	U	1	
5887	5/26/98	GW05980TE	1,1,2,2-Tetrachloroethane	1	ug/L	U	1	
5887	5/26/98	GW05980TE	1,1,2-Trichloroethane	1	ug/L	U	1	
5887	5/26/98	GW05980TE	1,1-Dichloroethane	1	ug/L	U	1	
5887	5/26/98	GW05980TE	1,1-Dichloroethene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	1,1-Dichloropropene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	1,2,3-Trichlorobenzene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	1,2,3-Trichloropropane	1	ug/L	U	1	
5887	5/26/98	GW05980TE	1,2,4-Trichlorobenzene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	1,2,4-Trimethylbenzene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	1,2-Dibromo-3-chloropropane	1	ug/L	U	1	
5887	5/26/98	GW05980TE	1,2-Dibromoethane	1	ug/L	U	1	
5887	5/26/98	GW05980TE	1,2-Dichlorobenzene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	1,2-Dichloroethane	1	ug/L	U	1	
5887	5/26/98	GW05980TE	1,2-Dichloropropane	1	ug/L	U	1	
5887	5/26/98	GW05980TE	1,3,5-Trimethylbenzene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	1,3-Dichlorobenzene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	1,3-Dichloropropane	1	ug/L	U	1	
5887	5/26/98	GW05980TE	1,4-Dichlorobenzene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	2,2-Dichloropropane	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Benzene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Bromobenzene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Bromochloromethane	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Bromodichloromethane	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Bromoform	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Bromomethane	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Carbon Tetrachloride	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Chlorobenzene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Chloroethane	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Chloroform	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Chloromethane	1	ug/L	U	1	
5887	5/26/98	GW05980TE	cis-1,2-Dichloroethene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	cis-1,3-Dichloropropene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Dibromochloromethane	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Dibromomethane	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Dichlorodifluoromethane	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Ethylbenzene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Hexachlorobutadiene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Isopropylbenzene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Methylene Chloride	6	ug/L	B	1	

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Volatile Organic Compounds

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
5887	5/26/98	GW05980TE	Naphthalene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	n-Butylbenzene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	n-Propylbenzene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	o-Chlorotoluene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	p-Chlorotoluene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	p-Isopropyltoluene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	sec-Butylbenzene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Styrene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	tert-Butylbenzene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Tetrachloroethene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Toluene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Total Xylenes	1	ug/L	U	1	
5887	5/26/98	GW05980TE	trans-1,2-Dichloroethene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	trans-1,3-Dichloropropene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Trichloroethene	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Trichlorofluoromethane	1	ug/L	U	1	
5887	5/26/98	GW05980TE	Vinyl Chloride	1	ug/L	U	1	
5887	8/31/98	GW06043TE	1,1,1,2-Tetrachloroethane	1	ug/L	U	1	
5887	8/31/98	GW06043TE	1,1,1-Trichloroethane	1	ug/L	U	1	
5887	8/31/98	GW06043TE	1,1,2,2-Tetrachloroethane	1	ug/L	U	1	
5887	8/31/98	GW06043TE	1,1,2-Trichloroethane	1	ug/L	U	1	
5887	8/31/98	GW06043TE	1,1-Dichloroethane	1	ug/L	U	1	
5887	8/31/98	GW06043TE	1,1-Dichloroethene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	1,1-Dichloropropene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	1,2,3-Trichlorobenzene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	1,2,3-Trichloropropane	1	ug/L	U	1	
5887	8/31/98	GW06043TE	1,2,4-Trichlorobenzene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	1,2,4-Trimethylbenzene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	1,2-Dibromo-3-chloropropane	1	ug/L	U	1	
5887	8/31/98	GW06043TE	1,2-Dibromoethane	1	ug/L	U	1	
5887	8/31/98	GW06043TE	1,2-Dichlorobenzene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	1,2-Dichloroethane	1	ug/L	U	1	
5887	8/31/98	GW06043TE	1,2-Dichloropropane	1	ug/L	U	1	
5887	8/31/98	GW06043TE	1,3,5-Trimethylbenzene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	1,3-Dichlorobenzene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	1,3-Dichloropropane	1	ug/L	U	1	
5887	8/31/98	GW06043TE	1,4-Dichlorobenzene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	2,2-Dichloropropane	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Benzene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Bromobenzene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Bromochloromethane	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Bromodichloromethane	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Bromoform	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Bromomethane	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Carbon Tetrachloride	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Chlorobenzene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Chloroethane	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Chloroform	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Chloromethane	1	ug/L	U	1	

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Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
5887	8/31/98	GW06043TE	cis-1,2-Dichloroethene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	cis-1,3-Dichloropropene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Dibromochloromethane	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Dibromomethane	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Dichlorodifluoromethane	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Ethylbenzene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Hexachlorobutadiene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Isopropylbenzene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Methylene Chloride	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Naphthalene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	n-Butylbenzene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	n-Propylbenzene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	o-Chlorotoluene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	p-Chlorotoluene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	p-Isopropyltoluene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	sec-Butylbenzene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Styrene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	tert-Butylbenzene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Tetrachloroethene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Toluene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Total Xylenes	1	ug/L	U	1	
5887	8/31/98	GW06043TE	trans-1,2-Dichloroethene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	trans-1,3-Dichloropropene	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Trichloroethene	0.7	ug/L	J	1	
5887	8/31/98	GW06043TE	Trichlorofluoromethane	1	ug/L	U	1	
5887	8/31/98	GW06043TE	Vinyl Chloride	1	ug/L	U	1	
5887	12/14/98	GW06151TE	1,1,1,2-Tetrachloroethane	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	1,1,1-Trichloroethane	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	1,1,2,2-Tetrachloroethane	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	1,1,2-Trichloroethane	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	1,1-Dichloroethane	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	1,1-Dichloroethene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	1,1-Dichloropropene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	1,2,3-Trichlorobenzene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	1,2,3-Trichloropropane	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	1,2,4-Trichlorobenzene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	1,2,4-Trimethylbenzene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	1,2-Dibromo-3-chloropropane	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	1,2-Dibromoethane	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	1,2-Dichlorobenzene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	1,2-Dichloroethane	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	1,2-Dichloropropane	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	1,3,5-Trimethylbenzene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	1,3-Dichlorobenzene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	1,3-Dichloropropane	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	1,4-Dichlorobenzene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	2,2-Dichloropropane	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Benzene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Bromobenzene	1	ug/L	U	1	R

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Volatile Organic Compounds

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
5887	12/14/98	GW06151TE	Bromochloromethane	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Bromodichloromethane	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Bromoform	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Bromomethane	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Carbon Tetrachloride	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Chlorobenzene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Chloroethane	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Chloroform	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Chloromethane	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	cis-1,2-Dichloroethene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	cis-1,3-Dichloropropene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Dibromochloromethane	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Dibromomethane	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Dichlorodifluoromethane	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Ethylbenzene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Hexachlorobutadiene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Isopropylbenzene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Methylene Chloride	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Naphthalene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	n-Butylbenzene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	n-Propylbenzene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	o-Chlorotoluene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	p-Chlorotoluene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	p-Isopropyltoluene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	sec-Butylbenzene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Styrene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	tert-Butylbenzene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Tetrachloroethene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Toluene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Total Xylenes	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	trans-1,2-Dichloroethene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	trans-1,3-Dichloropropene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Trichloroethene	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Trichlorofluoromethane	1	ug/L	U	1	R
5887	12/14/98	GW06151TE	Vinyl Chloride	1	ug/L	U	1	R
70193	2/26/98	GW05832TE	1,1,1,2-Tetrachloroethane	0.5	ug/L	U		
70193	2/26/98	GW05832TE	1,1,1-Trichloroethane	0.5	ug/L	U		
70193	2/26/98	GW05832TE	1,1,2,2-Tetrachloroethane	0.5	ug/L	U		
70193	2/26/98	GW05832TE	1,1,2-Trichloroethane	0.5	ug/L	U		
70193	2/26/98	GW05832TE	1,1-Dichloroethane	0.5	ug/L	U		
70193	2/26/98	GW05832TE	1,1-Dichloroethene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	1,1-Dichloropropene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	1,2,3-Trichlorobenzene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	1,2,3-Trichloropropane	0.5	ug/L	U		
70193	2/26/98	GW05832TE	1,2,4-Trichlorobenzene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	1,2,4-Trimethylbenzene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	1,2-Dibromo-3-chloropropane	0.5	ug/L	U		
70193	2/26/98	GW05832TE	1,2-Dibromoethane	0.5	ug/L	U		
70193	2/26/98	GW05832TE	1,2-Dichlorobenzene	0.5	ug/L	U		

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Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
70193	2/26/98	GW05832TE	1,2-Dichloroethane	0.5	ug/L	U		
70193	2/26/98	GW05832TE	1,2-Dichloropropane	0.5	ug/L	U		
70193	2/26/98	GW05832TE	1,3,5-Trimethylbenzene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	1,3-Dichlorobenzene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	1,3-Dichloropropane	0.5	ug/L	U		
70193	2/26/98	GW05832TE	1,4-Dichlorobenzene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	2,2-Dichloropropane	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Benzene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Bromobenzene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Bromochloromethane	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Bromodichloromethane	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Bromoform	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Bromomethane	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Carbon Tetrachloride	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Chlorobenzene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Chloroethane	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Chloroform	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Chloromethane	0.5	ug/L	U		
70193	2/26/98	GW05832TE	cis-1,2-Dichloroethene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	cis-1,3-Dichloropropene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Dibromochloromethane	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Dibromomethane	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Dichlorodifluoromethane	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Ethylbenzene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Hexachlorobutadiene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Isopropylbenzene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	m/p-Xylene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Methylene Chloride	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Naphthalene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	n-Butylbenzene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	n-Propylbenzene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	o-Chlorotoluene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	o-Xylene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	p-Chlorotoluene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	p-Isopropyltoluene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	sec-Butylbenzene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Styrene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	tert-Butylbenzene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Tetrachloroethene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Toluene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	trans-1,2-Dichloroethene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	trans-1,3-Dichloropropene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Trichloroethene	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Trichlorofluoromethane	0.5	ug/L	U		
70193	2/26/98	GW05832TE	Vinyl Chloride	0.5	ug/L	U		
70193	6/22/98	GW06034TE	1,1,1,2-Tetrachloroethane	1	ug/L	U	1	
70193	6/22/98	GW06034TE	1,1,1-Trichloroethane	1	ug/L	U	1	
70193	6/22/98	GW06034TE	1,1,2,2-Tetrachloroethane	1	ug/L	U	1	
70193	6/22/98	GW06034TE	1,1,2-Trichloroethane	1	ug/L	U	1	

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Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
70193	6/22/98	GW06034TE	1,1-Dichloroethane	1	ug/L	U	1	
70193	6/22/98	GW06034TE	1,1-Dichloroethene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	1,1-Dichloropropene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	1,2,3-Trichlorobenzene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	1,2,3-Trichloropropane	1	ug/L	U	1	
70193	6/22/98	GW06034TE	1,2,4-Trichlorobenzene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	1,2,4-Trimethylbenzene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	1,2-Dibromo-3-chloropropane	1	ug/L	U	1	
70193	6/22/98	GW06034TE	1,2-Dibromoethane	1	ug/L	U	1	
70193	6/22/98	GW06034TE	1,2-Dichlorobenzene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	1,2-Dichloroethane	1	ug/L	U	1	
70193	6/22/98	GW06034TE	1,2-Dichloropropane	1	ug/L	U	1	
70193	6/22/98	GW06034TE	1,3,5-Trimethylbenzene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	1,3-Dichlorobenzene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	1,3-Dichloropropane	1	ug/L	U	1	
70193	6/22/98	GW06034TE	1,4-Dichlorobenzene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	2,2-Dichloropropane	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Benzene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Bromobenzene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Bromochloromethane	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Bromodichloromethane	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Bromoform	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Bromomethane	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Carbon Tetrachloride	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Chlorobenzene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Chloroethane	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Chloroform	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Chloromethane	1	ug/L	U	1	
70193	6/22/98	GW06034TE	cis-1,2-Dichloroethene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	cis-1,3-Dichloropropene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Dibromochloromethane	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Dibromomethane	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Dichlorodifluoromethane	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Ethylbenzene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Hexachlorobutadiene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Isopropylbenzene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Methylene Chloride	3	ug/L		1	
70193	6/22/98	GW06034TE	Naphthalene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	n-Butylbenzene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	n-Propylbenzene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	o-Chlorotoluene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	p-Chlorotoluene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	p-Isopropyltoluene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	sec-Butylbenzene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Styrene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	tert-Butylbenzene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Tetrachloroethene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Toluene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Total Xylenes	1	ug/L	U	1	

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Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
70193	6/22/98	GW06034TE	trans-1,2-Dichloroethene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	trans-1,3-Dichloropropene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Trichloroethene	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Trichlorofluoromethane	1	ug/L	U	1	
70193	6/22/98	GW06034TE	Vinyl Chloride	1	ug/L	U	1	
70193	9/29/98	GW06116TE	1,1,1,2-Tetrachloroethane	1	ug/L	U	1	
70193	9/29/98	GW06116TE	1,1,1-Trichloroethane	1	ug/L	U	1	
70193	9/29/98	GW06116TE	1,1,2,2-Tetrachloroethane	1	ug/L	U	1	
70193	9/29/98	GW06116TE	1,1,2-Trichloroethane	1	ug/L	U	1	
70193	9/29/98	GW06116TE	1,1-Dichloroethane	1	ug/L	U	1	
70193	9/29/98	GW06116TE	1,1-Dichloroethene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	1,1-Dichloropropene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	1,2,3-Trichlorobenzene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	1,2,3-Trichloropropane	1	ug/L	U	1	
70193	9/29/98	GW06116TE	1,2,4-Trichlorobenzene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	1,2,4-Trimethylbenzene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	1,2-Dibromo-3-chloropropane	1	ug/L	U	1	
70193	9/29/98	GW06116TE	1,2-Dibromoethane	1	ug/L	U	1	
70193	9/29/98	GW06116TE	1,2-Dichlorobenzene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	1,2-Dichloroethane	1	ug/L	U	1	
70193	9/29/98	GW06116TE	1,2-Dichloropropane	1	ug/L	U	1	
70193	9/29/98	GW06116TE	1,3,5-Trimethylbenzene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	1,3-Dichlorobenzene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	1,3-Dichloropropane	1	ug/L	U	1	
70193	9/29/98	GW06116TE	1,4-Dichlorobenzene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	2,2-Dichloropropane	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Benzene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Bromobenzene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Bromochloromethane	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Bromodichloromethane	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Bromoform	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Bromomethane	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Carbon Tetrachloride	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Chlorobenzene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Chloroethane	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Chloroform	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Chloromethane	1	ug/L	U	1	
70193	9/29/98	GW06116TE	cis-1,2-Dichloroethene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	cis-1,3-Dichloropropene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Dibromochloromethane	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Dibromomethane	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Dichlorodifluoromethane	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Ethylbenzene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Hexachlorobutadiene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Isopropylbenzene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Methylene Chloride	4	ug/L		1	
70193	9/29/98	GW06116TE	Naphthalene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	n-Butylbenzene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	n-Propylbenzene	1	ug/L	U	1	

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Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
70193	9/29/98	GW06116TE	o-Chlorotoluene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	p-Chlorotoluene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	p-Isopropyltoluene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	sec-Butylbenzene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Styrene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	tert-Butylbenzene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Tetrachloroethene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Toluene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Total Xylenes	1	ug/L	U	1	
70193	9/29/98	GW06116TE	trans-1,2-Dichloroethene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	trans-1,3-Dichloropropene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Trichloroethene	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Trichlorofluoromethane	1	ug/L	U	1	
70193	9/29/98	GW06116TE	Vinyl Chloride	1	ug/L	U	1	
70193	11/30/98	GW06180TE	1,1,1,2-Tetrachloroethane	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	1,1,1-Trichloroethane	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	1,1,2,2-Tetrachloroethane	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	1,1,2-Trichloroethane	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	1,1-Dichloroethane	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	1,1-Dichloroethene	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	1,1-Dichloropropene	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	1,2,3-Trichlorobenzene	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	1,2,3-Trichloropropane	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	1,2,4-Trichlorobenzene	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	1,2,4-Trimethylbenzene	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	1,2-Dibromo-3-chloropropane	1	ug/L	U	1	R
70193	11/30/98	GW06180TE	1,2-Dibromoethane	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	1,2-Dichlorobenzene	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	1,2-Dichloroethane	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	1,2-Dichloropropane	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	1,3,5-Trimethylbenzene	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	1,3-Dichlorobenzene	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	1,3-Dichloropropane	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	1,4-Dichlorobenzene	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	2,2-Dichloropropane	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	Benzene	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	Bromobenzene	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	Bromochloromethane	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	Bromodichloromethane	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	Bromoform	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	Bromomethane	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	Carbon Tetrachloride	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	Chlorobenzene	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	Chloroethane	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	Chloroform	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	Chloromethane	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	cis-1 2-Dichloroethene	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	cis-1 3-Dichloropropene	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	Dibromochloromethane	1	ug/L	U	1	V

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Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
70193	11/30/98	GW06180TE	Dibromomethane	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	Dichlorodifluoromethane	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	Ethylbenzene	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	Hexachlorobutadiene	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	Isopropylbenzene	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	Methylene Chloride	19	ug/L	B	1	U
70193	11/30/98	GW06180TE	Naphthalene	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	n-Butylbenzene	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	n-Propylbenzene	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	o-Chlorotoluene	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	p-Chlorotoluene	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	p-Isopropyltoluene	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	sec-Butylbenzene	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	Styrene	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	tert-Butylbenzene	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	Tetrachloroethene	0.6	ug/L	J	1	V
70193	11/30/98	GW06180TE	Toluene	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	Total Xylenes	1	ug/L	U	1	UJ
70193	11/30/98	GW06180TE	trans-1,2-Dichloroethene	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	trans-1,3-Dichloropropene	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	Trichloroethene	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	Trichlorofluoromethane	1	ug/L	U	1	V
70193	11/30/98	GW06180TE	Vinyl Chloride	1	ug/L	U	1	V
70393	3/5/98	GW05835TE	1,1,1-Trichloroethane	38	ug/L			
70393	3/5/98	GW05835TE	1,1,2,2-Tetrachloroethane	0.5	ug/L	U		
70393	3/5/98	GW05835TE	1,1,2-Trichloroethane	0.5	ug/L	U		
70393	3/5/98	GW05835TE	1,1-Dichloroethane	0.5	ug/L	U		
70393	3/5/98	GW05835TE	1,1-Dichloropropene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	1,2,3-Trichlorobenzene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	1,2,3-Trichloropropane	0.5	ug/L	U		
70393	3/5/98	GW05835TE	1,2,4-Trichlorobenzene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	1,2,4-Trimethylbenzene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	1,2-Dibromo-3-chloropropane	0.5	ug/L	U		
70393	3/5/98	GW05835TE	1,2-Dibromoethane	0.5	ug/L	U		
70393	3/5/98	GW05835TE	1,2-Dichlorobenzene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	1,2-Dichloroethane	0.5	ug/L	U		
70393	3/5/98	GW05835TE	1,2-Dichloropropane	0.5	ug/L	U		
70393	3/5/98	GW05835TE	1,3,5-Trimethylbenzene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	1,3-Dichlorobenzene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	1,3-Dichloropropane	0.5	ug/L	U		
70393	3/5/98	GW05835TE	1,4-Dichlorobenzene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	2,2-Dichloropropane	0.5	ug/L	U		
70393	3/5/98	GW05835TE	Benzene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	Bromobenzene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	Bromochloromethane	0.5	ug/L	U		
70393	3/5/98	GW05835TE	Bromodichloromethane	0.5	ug/L	U		
70393	3/5/98	GW05835TE	Bromoform	0.5	ug/L	U		
70393	3/5/98	GW05835TE	Bromomethane	0.5	ug/L	U		

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Volatile Organic Compounds

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
70393	3/5/98	GW05835TE	Carbon Tetrachloride	0.9	ug/L			
70393	3/5/98	GW05835TE	Chlorobenzene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	Chloroethane	0.5	ug/L	U		
70393	3/5/98	GW05835TE	Chloroform	0.5	ug/L	U		
70393	3/5/98	GW05835TE	Chloromethane	0.5	ug/L	U		
70393	3/5/98	GW05835TE	cis-1,2-Dichloroethene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	cis-1,3-Dichloropropene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	Dibromochloromethane	0.5	ug/L	U		
70393	3/5/98	GW05835TE	Dibromomethane	0.5	ug/L	U		
70393	3/5/98	GW05835TE	Dichlorodifluoromethane	0.5	ug/L	U		
70393	3/5/98	GW05835TE	Ethylbenzene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	Hexachlorobutadiene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	Isopropylbenzene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	m/p-Xylene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	Methylene Chloride	0.5	ug/L	U		
70393	3/5/98	GW05835TE	Naphthalene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	n-Butylbenzene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	n-Propylbenzene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	o-Chlorotoluene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	o-Xylene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	p-Chlorotoluene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	p-Isopropyltoluene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	sec-Butylbenzene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	Styrene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	tert-Butylbenzene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	Tetrachloroethene	8	ug/L			
70393	3/5/98	GW05835TE	Toluene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	trans-1,2-Dichloroethene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	trans-1,3-Dichloropropene	0.5	ug/L	U		
70393	3/5/98	GW05835TE	Trichloroethene	24	ug/L			
70393	3/5/98	GW05835TE	Trichlorofluoromethane	0.5	ug/L	U		
70393	3/5/98	GW05835TE	Vinyl Chloride	0.5	ug/L	U		
70393	6/24/98	GW06035TE	1,1,1,2-Tetrachloroethane	1	ug/L	U	1	
70393	6/24/98	GW06035TE	1,1,1-Trichloroethane	35	ug/L		1	
70393	6/24/98	GW06035TE	1,1,2,2-Tetrachloroethane	1	ug/L	U	1	
70393	6/24/98	GW06035TE	1,1,2-Trichloroethane	1	ug/L	U	1	
70393	6/24/98	GW06035TE	1,1-Dichloroethane	1	ug/L	U	1	
70393	6/24/98	GW06035TE	1,1-Dichloroethene	17	ug/L		1	
70393	6/24/98	GW06035TE	1,1-Dichloropropene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	1,2,3-Trichlorobenzene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	1,2,3-Trichloropropane	1	ug/L	U	1	
70393	6/24/98	GW06035TE	1,2,4-Trichlorobenzene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	1,2,4-Trimethylbenzene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	1,2-Dibromo-3-chloropropane	1	ug/L	U	1	
70393	6/24/98	GW06035TE	1,2-Dibromoethane	1	ug/L	U	1	
70393	6/24/98	GW06035TE	1,2-Dichlorobenzene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	1,2-Dichloroethane	1	ug/L	U	1	
70393	6/24/98	GW06035TE	1,2-Dichloropropane	1	ug/L	U	1	
70393	6/24/98	GW06035TE	1,3,5-Trimethylbenzene	1	ug/L	U	1	

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Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
70393	6/24/98	GW06035TE	1,3-Dichlorobenzene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	1,3-Dichloropropane	1	ug/L	U	1	
70393	6/24/98	GW06035TE	1,4-Dichlorobenzene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	2,2-Dichloropropane	1	ug/L	U	1	
70393	6/24/98	GW06035TE	Benzene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	Bromobenzene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	Bromochloromethane	1	ug/L	U	1	
70393	6/24/98	GW06035TE	Bromodichloromethane	1	ug/L	U	1	
70393	6/24/98	GW06035TE	Bromoform	1	ug/L	U	1	
70393	6/24/98	GW06035TE	Bromomethane	1	ug/L	U	1	
70393	6/24/98	GW06035TE	Carbon Tetrachloride	4	ug/L		1	
70393	6/24/98	GW06035TE	Chlorobenzene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	Chloroethane	1	ug/L	U	1	
70393	6/24/98	GW06035TE	Chloroform	1	ug/L	U	1	
70393	6/24/98	GW06035TE	Chloromethane	1	ug/L	U	1	
70393	6/24/98	GW06035TE	cis-1,2-Dichloroethene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	cis-1,3-Dichloropropene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	Dibromochloromethane	1	ug/L	U	1	
70393	6/24/98	GW06035TE	Dibromomethane	1	ug/L	U	1	
70393	6/24/98	GW06035TE	Dichlorodifluoromethane	1	ug/L	U	1	
70393	6/24/98	GW06035TE	Ethylbenzene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	Hexachlorobutadiene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	Isopropylbenzene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	Methylene Chloride	3	ug/L		1	
70393	6/24/98	GW06035TE	Naphthalene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	n-Butylbenzene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	n-Propylbenzene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	o-Chlorotoluene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	p-Chlorotoluene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	p-Isopropyltoluene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	sec-Butylbenzene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	Styrene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	tert-Butylbenzene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	Tetrachloroethene	8	ug/L		1	
70393	6/24/98	GW06035TE	Toluene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	Total Xylenes	1	ug/L	U	1	
70393	6/24/98	GW06035TE	trans-1,2-Dichloroethene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	trans-1,3-Dichloropropene	1	ug/L	U	1	
70393	6/24/98	GW06035TE	Trichloroethene	24	ug/L		1	
70393	6/24/98	GW06035TE	Trichlorofluoromethane	1	ug/L	U	1	
70393	6/24/98	GW06035TE	Vinyl Chloride	1	ug/L	U	1	
70393	8/26/98	GW05990TE	1,1,1,2-Tetrachloroethane	1	ug/L	U	1	
70393	8/26/98	GW05990TE	1,1,1-Trichloroethane	35	ug/L		1	
70393	8/26/98	GW05990TE	1 1 2 2-Tetrachloroethane	1	ug/L	U	1	
70393	8/26/98	GW05990TE	1,1,2-Trichloroethane	1	ug/L	U	1	
70393	8/26/98	GW05990TE	1,1-Dichloroethane	1	ug/L	U	1	
70393	8/26/98	GW05990TE	1,1-Dichloroethene	17	ug/L		1	
70393	8/26/98	GW05990TE	1,1-Dichloropropene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	1 2 3-Trichlorobenzene	1	ug/L	U	1	

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Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
70393	8/26/98	GW05990TE	1,2,3-Trichloropropane	1	ug/L	U	1	
70393	8/26/98	GW05990TE	1,2,4-Trichlorobenzene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	1,2,4-Trimethylbenzene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	1,2-Dibromo-3-chloropropane	1	ug/L	U	1	
70393	8/26/98	GW05990TE	1,2-Dibromoethane	1	ug/L	U	1	
70393	8/26/98	GW05990TE	1,2-Dichlorobenzene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	1,2-Dichloroethane	1	ug/L	U	1	
70393	8/26/98	GW05990TE	1,2-Dichloropropane	1	ug/L	U	1	
70393	8/26/98	GW05990TE	1,3,5-Trimethylbenzene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	1,3-Dichlorobenzene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	1,3-Dichloropropane	1	ug/L	U	1	
70393	8/26/98	GW05990TE	1,4-Dichlorobenzene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	2,2-Dichloropropane	1	ug/L	U	1	
70393	8/26/98	GW05990TE	Benzene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	Bromobenzene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	Bromochloromethane	1	ug/L	U	1	
70393	8/26/98	GW05990TE	Bromodichloromethane	1	ug/L	U	1	
70393	8/26/98	GW05990TE	Bromoform	1	ug/L	U	1	
70393	8/26/98	GW05990TE	Bromomethane	1	ug/L	U	1	
70393	8/26/98	GW05990TE	Carbon Tetrachloride	0.8	ug/L	J	1	
70393	8/26/98	GW05990TE	Chlorobenzene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	Chloroethane	1	ug/L	U	1	
70393	8/26/98	GW05990TE	Chloroform	1	ug/L	U	1	
70393	8/26/98	GW05990TE	Chloromethane	1	ug/L	U	1	
70393	8/26/98	GW05990TE	cis-1,2-Dichloroethene	0.5	ug/L	J	1	
70393	8/26/98	GW05990TE	cis-1,3-Dichloropropene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	Dibromochloromethane	1	ug/L	U	1	
70393	8/26/98	GW05990TE	Dibromomethane	1	ug/L	U	1	
70393	8/26/98	GW05990TE	Dichlorodifluoromethane	1	ug/L	U	1	
70393	8/26/98	GW05990TE	Ethylbenzene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	Hexachlorobutadiene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	Isopropylbenzene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	Methylene Chloride	1	ug/L	U	1	
70393	8/26/98	GW05990TE	Naphthalene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	n-Butylbenzene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	n-Propylbenzene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	o-Chlorotoluene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	p-Chlorotoluene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	p-Isopropyltoluene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	sec-Butylbenzene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	Styrene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	tert-Butylbenzene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	Tetrachloroethene	8	ug/L		1	
70393	8/26/98	GW05990TE	Toluene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	Total Xylenes	1	ug/L	U	1	
70393	8/26/98	GW05990TE	trans-1,2-Dichloroethene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	trans-1,3-Dichloropropene	1	ug/L	U	1	
70393	8/26/98	GW05990TE	Trichloroethene	23	ug/L		1	
70393	8/26/98	GW05990TE	Trichlorofluoromethane	1	ug/L	U	1	

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Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
70393	8/26/98	GW05990TE	Vinyl Chloride	1	ug/L	U	1	
70393	12/14/98	GW06190TE	1,1,1,2-Tetrachloroethane	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	1,1,1-Trichloroethane	28	ug/L		1	J
70393	12/14/98	GW06190TE	1,1,2,2-Tetrachloroethane	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	1,1,2-Trichloroethane	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	1,1-Dichloroethane	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	1,1-Dichloroethene	14	ug/L		1	J
70393	12/14/98	GW06190TE	1,1-Dichloropropene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	1,2,3-Trichlorobenzene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	1,2,3-Trichloropropane	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	1,2,4-Trichlorobenzene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	1,2,4-Trimethylbenzene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	1,2-Dibromo-3-chloropropane	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	1,2-Dibromoethane	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	1,2-Dichlorobenzene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	1,2-Dichloroethane	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	1,2-Dichloropropane	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	1,3,5-Trimethylbenzene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	1,3-Dichlorobenzene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	1,3-Dichloropropane	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	1,4-Dichlorobenzene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	2,2-Dichloropropane	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	Benzene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	Bromobenzene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	Bromochloromethane	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	Bromodichloromethane	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	Bromoform	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	Bromomethane	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	Carbon Tetrachloride	0.7	ug/L	J	1	J
70393	12/14/98	GW06190TE	Chlorobenzene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	Chloroethane	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	Chloroform	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	Chloromethane	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	cis-1,2-Dichloroethene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	cis-1,3-Dichloropropene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	Dibromochloromethane	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	Dibromomethane	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	Dichlorodifluoromethane	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	Ethylbenzene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	Hexachlorobutadiene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	Isopropylbenzene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	Methylene Chloride	0.5	ug/L	BJ	1	U
70393	12/14/98	GW06190TE	Naphthalene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	n-Butylbenzene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	n-Propylbenzene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	o-Chlorotoluene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	p-Chlorotoluene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	p-Isopropyltoluene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	sec-Butylbenzene	1	ug/L	U	1	R

Appendix B: Groundwater Analytical Data
Volatile Organic Compounds

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
70393	12/14/98	GW06190TE	Styrene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	tert-Butylbenzene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	Tetrachloroethene	7	ug/L		1	J
70393	12/14/98	GW06190TE	Toluene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	Total Xylenes	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	trans-1,2-Dichloroethene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	trans-1,3-Dichloropropene	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	Trichloroethene	21	ug/L		1	J
70393	12/14/98	GW06190TE	Trichlorofluoromethane	1	ug/L	U	1	R
70393	12/14/98	GW06190TE	Vinyl Chloride	1	ug/L	U	1	R
70493	2/25/98	GW05837TE	1,1,1-Trichloroethane	0.5	ug/L	U		
70493	2/25/98	GW05837TE	1,1,2,2-Tetrachloroethane	0.5	ug/L	U		
70493	2/25/98	GW05837TE	1,1,2-Trichloroethane	0.5	ug/L	U		
70493	2/25/98	GW05837TE	1,1-Dichloroethane	0.5	ug/L	U		
70493	2/25/98	GW05837TE	1,1-Dichloroethene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	1,1-Dichloropropene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	1,2,3-Trichlorobenzene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	1,2,3-Trichloropropane	0.5	ug/L	U		
70493	2/25/98	GW05837TE	1,2,4-Trichlorobenzene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	1,2,4-Trimethylbenzene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	1,2-Dibromo-3-chloropropane	0.5	ug/L	U		
70493	2/25/98	GW05837TE	1,2-Dibromoethane	0.5	ug/L	U		
70493	2/25/98	GW05837TE	1,2-Dichlorobenzene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	1,2-Dichloroethane	0.5	ug/L	U		
70493	2/25/98	GW05837TE	1,2-Dichloropropane	0.5	ug/L	U		
70493	2/25/98	GW05837TE	1,3,5-Trimethylbenzene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	1,3-Dichlorobenzene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	1,3-Dichloropropane	0.5	ug/L	U		
70493	2/25/98	GW05837TE	1,4-Dichlorobenzene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	2,2-Dichloropropane	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Benzene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Bromobenzene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Bromochloromethane	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Bromodichloromethane	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Bromoform	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Bromomethane	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Carbon Tetrachloride	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Chlorobenzene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Chloroethane	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Chloroform	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Chloromethane	0.5	ug/L	U		
70493	2/25/98	GW05837TE	cis-1,2-Dichloroethene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	cis-1,3-Dichloropropene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Dibromochloromethane	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Dibromomethane	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Dichlorodifluoromethane	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Ethylbenzene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Hexachlorobutadiene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Isopropylbenzene	0.5	ug/L	U		

Appendix B Groundwater Analytical Data

Volatile Organic Compounds

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
70493	2/25/98	GW05837TE	m/p-Xylene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Methylene Chloride	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Naphthalene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	n-Butylbenzene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	n-Propylbenzene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	o-Chlorotoluene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	o-Xylene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	p-Chlorotoluene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	p-Isopropyltoluene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	sec-Butylbenzene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Styrene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	tert-Butylbenzene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Tetrachloroethene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Toluene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	trans-1,2-Dichloroethene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	trans-1,3-Dichloropropene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Trichloroethene	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Trichlorofluoromethane	0.5	ug/L	U		
70493	2/25/98	GW05837TE	Vinyl Chloride	0.5	ug/L	U		
70493	6/22/98	GW06036TE	1,1,1,2-Tetrachloroethane	1	ug/L	U	1	
70493	6/22/98	GW06036TE	1,1,1-Trichloroethane	0.6	ug/L	J	1	
70493	6/22/98	GW06036TE	1,1,2,2-Tetrachloroethane	1	ug/L	U	1	
70493	6/22/98	GW06036TE	1,1,2-Trichloroethane	1	ug/L	U	1	
70493	6/22/98	GW06036TE	1,1-Dichloroethane	1	ug/L	U	1	
70493	6/22/98	GW06036TE	1,1-Dichloroethene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	1,1-Dichloropropene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	1,2,3-Trichlorobenzene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	1,2,3-Trichloropropane	1	ug/L	U	1	
70493	6/22/98	GW06036TE	1,2,4-Trichlorobenzene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	1,2,4-Trimethylbenzene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	1,2-Dibromo-3-chloropropane	1	ug/L	U	1	
70493	6/22/98	GW06036TE	1,2-Dibromoethane	1	ug/L	U	1	
70493	6/22/98	GW06036TE	1,2-Dichlorobenzene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	1,2-Dichloroethane	1	ug/L	U	1	
70493	6/22/98	GW06036TE	1,2-Dichloropropane	1	ug/L	U	1	
70493	6/22/98	GW06036TE	1,3,5-Trimethylbenzene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	1,3-Dichlorobenzene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	1,3-Dichloropropane	1	ug/L	U	1	
70493	6/22/98	GW06036TE	1,4-Dichlorobenzene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	2,2-Dichloropropane	1	ug/L	U	1	
70493	6/22/98	GW06036TE	Benzene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	Bromobenzene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	Bromochloromethane	1	ug/L	U	1	
70493	6/22/98	GW06036TE	Bromodichloromethane	1	ug/L	U	1	
70493	6/22/98	GW06036TE	Bromoform	1	ug/L	U	1	
70493	6/22/98	GW06036TE	Bromomethane	1	ug/L	U	1	
70493	6/22/98	GW06036TE	Carbon Tetrachloride	1	ug/L	U	1	
70493	6/22/98	GW06036TE	Chlorobenzene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	Chloroethane	1	ug/L	U	1	

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Appendix B Groundwater Analytical Data
Volatile Organic Compounds

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
70493	6/22/98	GW06036TE	Chloroform	1	ug/L	U	1	
70493	6/22/98	GW06036TE	Chloromethane	1	ug/L	U	1	
70493	6/22/98	GW06036TE	cis-1,2-Dichloroethene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	cis-1,3-Dichloropropene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	Dibromochloromethane	1	ug/L	U	1	
70493	6/22/98	GW06036TE	Dibromomethane	1	ug/L	U	1	
70493	6/22/98	GW06036TE	Dichlorodifluoromethane	1	ug/L	U	1	
70493	6/22/98	GW06036TE	Ethylbenzene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	Hexachlorobutadiene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	Isopropylbenzene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	Methylene Chloride	3	ug/L		1	
70493	6/22/98	GW06036TE	Naphthalene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	n-Butylbenzene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	n-Propylbenzene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	o-Chlorotoluene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	p-Chlorotoluene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	p-Isopropyltoluene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	sec-Butylbenzene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	Styrene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	tert-Butylbenzene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	Tetrachloroethene	1	ug/L		1	
70493	6/22/98	GW06036TE	Toluene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	Total Xylenes	1	ug/L	U	1	
70493	6/22/98	GW06036TE	trans-1,2-Dichloroethene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	trans-1,3-Dichloropropene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	Trichloroethene	1	ug/L	U	1	
70493	6/22/98	GW06036TE	Trichlorofluoromethane	1	ug/L	U	1	
70493	6/22/98	GW06036TE	Vinyl Chloride	1	ug/L	U	1	
70493	8/20/98	GW05992TE	1,1,1,2-Tetrachloroethane	1	ug/L	U	1	
70493	8/20/98	GW05992TE	1,1,1-Trichloroethane	1	ug/L	U	1	
70493	8/20/98	GW05992TE	1,1,2,2-Tetrachloroethane	1	ug/L	U	1	
70493	8/20/98	GW05992TE	1,1,2-Trichloroethane	1	ug/L	U	1	
70493	8/20/98	GW05992TE	1,1-Dichloroethane	1	ug/L	U	1	
70493	8/20/98	GW05992TE	1,1-Dichloroethene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	1,1-Dichloropropene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	1,2,3-Trichlorobenzene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	1,2,3-Trichloropropane	1	ug/L	U	1	
70493	8/20/98	GW05992TE	1,2,4-Trichlorobenzene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	1,2,4-Trimethylbenzene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	1,2-Dibromo-3-chloropropane	1	ug/L	U	1	
70493	8/20/98	GW05992TE	1,2-Dibromoethane	1	ug/L	U	1	
70493	8/20/98	GW05992TE	1,2-Dichlorobenzene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	1,2-Dichloroethane	1	ug/L	U	1	
70493	8/20/98	GW05992TE	1,2-Dichloropropane	1	ug/L	U	1	
70493	8/20/98	GW05992TE	1,3,5-Trimethylbenzene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	1,3-Dichlorobenzene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	1,3-Dichloropropane	1	ug/L	U	1	
70493	8/20/98	GW05992TE	1,4-Dichlorobenzene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	2,2-Dichloropropane	1	ug/L	U	1	

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Appendix B Groundwater Analytical Data

Volatile Organic Compounds

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
70493	8/20/98	GW05992TE	Benzene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	Bromobenzene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	Bromochloromethane	1	ug/L	U	1	
70493	8/20/98	GW05992TE	Bromodichloromethane	1	ug/L	U	1	
70493	8/20/98	GW05992TE	Bromoform	1	ug/L	U	1	
70493	8/20/98	GW05992TE	Bromomethane	1	ug/L	U	1	
70493	8/20/98	GW05992TE	Carbon Tetrachloride	1	ug/L	U	1	
70493	8/20/98	GW05992TE	Chlorobenzene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	Chloroethane	1	ug/L	U	1	
70493	8/20/98	GW05992TE	Chloroform	1	ug/L	U	1	
70493	8/20/98	GW05992TE	Chloromethane	1	ug/L	U	1	
70493	8/20/98	GW05992TE	cis-1,2-Dichloroethene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	cis-1,3-Dichloropropene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	Dibromochloromethane	1	ug/L	U	1	
70493	8/20/98	GW05992TE	Dibromomethane	1	ug/L	U	1	
70493	8/20/98	GW05992TE	Dichlorodifluoromethane	1	ug/L	U	1	
70493	8/20/98	GW05992TE	Ethylbenzene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	Hexachlorobutadiene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	Isopropylbenzene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	Methylene Chloride	0.9	ug/L	J	1	
70493	8/20/98	GW05992TE	Naphthalene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	n-Butylbenzene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	n-Propylbenzene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	o-Chlorotoluene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	p-Chlorotoluene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	p-Isopropyltoluene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	sec-Butylbenzene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	Styrene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	tert-Butylbenzene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	Tetrachloroethene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	Toluene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	Total Xylenes	1	ug/L	U	1	
70493	8/20/98	GW05992TE	trans-1,2-Dichloroethene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	trans-1,3-Dichloropropene	1	ug/L	U	1	
70493	8/20/98	GW05992TE	Trichloroethene	0.9	ug/L	J	1	
70493	8/20/98	GW05992TE	Trichlorofluoromethane	1	ug/L	U	1	
70493	8/20/98	GW05992TE	Vinyl Chloride	1	ug/L	U	1	
70493	11/18/98	GW06187TE	1,1,1,2-Tetrachloroethane	4	ug/L		1	V1
70493	11/18/98	GW06187TE	1,1,1-Trichloroethane	0.8	ug/L	J	1	V1
70493	11/18/98	GW06187TE	1,1,2,2-Tetrachloroethane	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	1,1,2-Trichloroethane	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	1,1-Dichloroethane	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	1,1-Dichloroethene	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	1,1-Dichloropropene	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	1,2,3-Trichlorobenzene	1	ug/L	U	1	J1
70493	11/18/98	GW06187TE	1,2,3-Trichloropropane	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	1,2,4-Trichlorobenzene	1	ug/L	U	1	J1
70493	11/18/98	GW06187TE	1,2,4-Trimethylbenzene	1	ug/L	U	1	J1
70493	11/18/98	GW06187TE	1,2-Dibromo-3-chloropropane	1	ug/L	U	1	R1

Appendix B. Groundwater Analytical Data
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Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
70493	11/18/98	GW06187TE	1,2-Dibromoethane	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	1,2-Dichlorobenzene	1	ug/L	U	1	J1
70493	11/18/98	GW06187TE	1,2-Dichloroethane	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	1,2-Dichloropropane	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	1,3,5-Trimethylbenzene	1	ug/L	U	1	J1
70493	11/18/98	GW06187TE	1,3-Dichlorobenzene	1	ug/L	U	1	J1
70493	11/18/98	GW06187TE	1,3-Dichloropropane	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	1,4-Dichlorobenzene	1	ug/L	U	1	J1
70493	11/18/98	GW06187TE	2,2-Dichloropropane	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	Benzene	1	ug/L	U	1	J1
70493	11/18/98	GW06187TE	Bromobenzene	1	ug/L	U	1	J1
70493	11/18/98	GW06187TE	Bromochloromethane	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	Bromodichloromethane	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	Bromoform	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	Bromomethane	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	Carbon Tetrachloride	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	Chlorobenzene	1	ug/L	U	1	J1
70493	11/18/98	GW06187TE	Chloroethane	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	Chloroform	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	Chloromethane	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	cis-1,2-Dichloroethene	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	cis-1,3-Dichloropropene	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	Dibromochloromethane	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	Dibromomethane	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	Dichlorodifluoromethane	1	ug/L	U	1	J1
70493	11/18/98	GW06187TE	Ethylbenzene	1	ug/L	U	1	J1
70493	11/18/98	GW06187TE	Hexachlorobutadiene	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	Isopropylbenzene	1	ug/L	U	1	J1
70493	11/18/98	GW06187TE	Methylene Chloride	7	ug/L		1	J1
70493	11/18/98	GW06187TE	Naphthalene	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	n-Butylbenzene	1	ug/L	U	1	J1
70493	11/18/98	GW06187TE	n-Propylbenzene	1	ug/L	U	1	J1
70493	11/18/98	GW06187TE	o-Chlorotoluene	1	ug/L	U	1	J1
70493	11/18/98	GW06187TE	p-Chlorotoluene	1	ug/L	U	1	J1
70493	11/18/98	GW06187TE	p-Isopropyltoluene	1	ug/L	U	1	J1
70493	11/18/98	GW06187TE	sec-Butylbenzene	1	ug/L	U	1	J1
70493	11/18/98	GW06187TE	Styrene	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	tert-Butylbenzene	1	ug/L	U	1	J1
70493	11/18/98	GW06187TE	Tetrachloroethene	4	ug/L		1	V1
70493	11/18/98	GW06187TE	Toluene	1	ug/L	U	1	J1
70493	11/18/98	GW06187TE	Total Xylenes	1	ug/L	U	1	J1
70493	11/18/98	GW06187TE	trans-1,2-Dichloroethene	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	trans-1,3-Dichloropropene	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	Trichloroethene	1	ug/L		1	V1
70493	11/18/98	GW06187TE	Trichlorofluoromethane	1	ug/L	U	1	V1
70493	11/18/98	GW06187TE	Vinyl Chloride	1	ug/L	U	1	V1
B206989	2/24/98	GW05840TE	1,1 1-Trichloroethane	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	1,1 2,2-Tetrachloroethane	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	1,1 2-Trichloroethane	0.5	ug/L	U		

Appendix B. Groundwater Analytical Data
Volatile Organic Compounds

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
B206989	2/24/98	GW05840TE	1,1-Dichloroethane	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	1,1-Dichloroethene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	1,1-Dichloropropene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	1,2,3-Trichlorobenzene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	1,2,3-Trichloropropane	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	1,2,4-Trichlorobenzene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	1,2,4-Trimethylbenzene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	1,2-Dibromo-3-chloropropane	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	1,2-Dibromoethane	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	1,2-Dichlorobenzene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	1,2-Dichloroethane	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	1,2-Dichloropropane	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	1,3,5-Trimethylbenzene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	1,3-Dichlorobenzene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	1,3-Dichloropropane	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	1,4-Dichlorobenzene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	2,2-Dichloropropane	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	Benzene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	Bromobenzene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	Bromochloromethane	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	Bromodichloromethane	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	Bromoform	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	Bromomethane	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	Carbon Tetrachloride	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	Chlorobenzene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	Chloroethane	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	Chloroform	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	Chloromethane	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	cis-1,2-Dichloroethene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	cis-1,3-Dichloropropene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	Dibromochloromethane	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	Dibromomethane	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	Dichlorodifluoromethane	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	Ethylbenzene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	Hexachlorobutadiene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	Isopropylbenzene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	m/p-Xylene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	Methylene Chloride	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	Naphthalene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	n-Butylbenzene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	n-Propylbenzene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	o-Chlorotoluene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	o-Xylene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	p-Chlorotoluene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	p-Isopropyltoluene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	sec-Butylbenzene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	Styrene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	tert-Butylbenzene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	Tetrachloroethene	0.5	ug/L	U		

Appendix B: Groundwater Analytical Data
Volatile Organic Compounds

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
B206989	2/24/98	GW05840TE	Toluene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	trans-1,2-Dichloroethene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	trans-1,3-Dichloropropene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	Trichloroethene	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	Trichlorofluoromethane	0.5	ug/L	U		
B206989	2/24/98	GW05840TE	Vinyl Chloride	0.5	ug/L	U		
B206989	6/2/98	GW05997TE	1,1,1,2-Tetrachloroethane	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	1,1,1-Trichloroethane	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	1,1,2,2-Tetrachloroethane	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	1,1,2-Trichloroethane	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	1,1-Dichloroethane	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	1,1-Dichloroethene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	1,1-Dichloropropene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	1,2,3-Trichlorobenzene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	1,2,3-Trichloropropane	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	1,2,4-Trichlorobenzene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	1,2,4-Trimethylbenzene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	1,2-Dibromo-3-chloropropane	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	1,2-Dibromoethane	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	1,2-Dichlorobenzene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	1,2-Dichloroethane	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	1,2-Dichloropropane	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	1,3,5-Trimethylbenzene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	1,3-Dichlorobenzene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	1,3-Dichloropropane	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	1,4-Dichlorobenzene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	2,2-Dichloropropane	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Benzene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Bromobenzene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Bromochloromethane	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Bromodichloromethane	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Bromoform	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Bromomethane	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Carbon Tetrachloride	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Chlorobenzene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Chloroethane	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Chloroform	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Chloromethane	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	cis-1,2-Dichloroethene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	cis-1,3-Dichloropropene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Dibromochloromethane	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Dibromomethane	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Dichlorodifluoromethane	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Ethylbenzene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Hexachlorobutadiene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Isopropylbenzene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	m/p-Xylene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Methylene Chloride	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Naphthalene	1	ug/L	U	1	

Appendix B Groundwater Analytical Data
Volatile Organic Compounds

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
B206989	6/2/98	GW05997TE	n-Butylbenzene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	n-Propylbenzene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	o-Chlorotoluene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	o-Xylene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	p-Chlorotoluene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	p-Isopropyltoluene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	sec-Butylbenzene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Styrene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	tert-Butylbenzene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Tetrachloroethene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Toluene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	trans-1,2-Dichloroethene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	trans-1,3-Dichloropropene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Trichloroethene	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Trichlorofluoromethane	1	ug/L	U	1	
B206989	6/2/98	GW05997TE	Vinyl Chloride	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	1,1,1,2-Tetrachloroethane	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	1,1,1-Trichloroethane	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	1,1,2,2-Tetrachloroethane	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	1,1,2-Trichloroethane	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	1,1-Dichloroethane	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	1,1-Dichloroethene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	1,1-Dichloropropene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	1,2,3-Trichlorobenzene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	1,2,3-Trichloropropane	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	1,2,4-Trichlorobenzene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	1,2,4-Trimethylbenzene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	1,2-Dibromo-3-chloropropane	1	ug/L	U	1	R1
B206989	8/25/98	GW06048TE	1,2-Dibromoethane	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	1,2-Dichlorobenzene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	1,2-Dichloroethane	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	1,2-Dichloropropane	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	1,3,5-Trimethylbenzene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	1,3-Dichlorobenzene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	1,3-Dichloropropane	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	1,4-Dichlorobenzene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	2,2-Dichloropropane	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Benzene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Bromobenzene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Bromochloromethane	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Bromodichloromethane	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Bromoform	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Bromomethane	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Carbon Tetrachloride	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Chlorobenzene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Chloroethane	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Chloroform	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Chloromethane	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	cis-1,2-Dichloroethene	1	ug/L	U	1	

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Appendix B Groundwater Analytical Data

Volatile Organic Compounds

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
B206989	8/25/98	GW06048TE	cis-1,3-Dichloropropene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Dibromochloromethane	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Dibromomethane	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Dichlorodifluoromethane	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Ethylbenzene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Hexachlorobutadiene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Isopropylbenzene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Methylene Chloride	0.6	ug/L	J	1	
B206989	8/25/98	GW06048TE	Naphthalene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	n-Butylbenzene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	n-Propylbenzene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	o-Chlorotoluene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	p-Chlorotoluene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	p-Isopropyltoluene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	sec-Butylbenzene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Styrene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	tert-Butylbenzene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Tetrachloroethene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Toluene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Total Xylenes	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	trans-1,2-Dichloroethene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	trans-1,3-Dichloropropene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Trichloroethene	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Trichlorofluoromethane	1	ug/L	U	1	
B206989	8/25/98	GW06048TE	Vinyl Chloride	1	ug/L	U	1	
B206989	11/16/98	GW06172TE	1,1,1,2-Tetrachloroethane	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	1,1,1-Trichloroethane	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	1,1,2,2-Tetrachloroethane	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	1,1,2-Trichloroethane	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	1,1-Dichloroethane	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	1,1-Dichloroethene	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	1,1-Dichloropropene	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	1,2,3-Trichlorobenzene	1	ug/L	U	1	J1
B206989	11/16/98	GW06172TE	1,2,3-Trichloropropane	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	1,2,4-Trichlorobenzene	1	ug/L	U	1	J1
B206989	11/16/98	GW06172TE	1,2,4-Trimethylbenzene	1	ug/L	U	1	J1
B206989	11/16/98	GW06172TE	1,2-Dibromo-3-chloropropane	1	ug/L	U	1	R1
B206989	11/16/98	GW06172TE	1,2-Dibromoethane	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	1,2-Dichlorobenzene	1	ug/L	U	1	J1
B206989	11/16/98	GW06172TE	1,2-Dichloroethane	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	1,2-Dichloropropane	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	1,3,5-Trimethylbenzene	1	ug/L	U	1	J1
B206989	11/16/98	GW06172TE	1,3-Dichlorobenzene	1	ug/L	U	1	J1
B206989	11/16/98	GW06172TE	1,3-Dichloropropane	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	1,4-Dichlorobenzene	1	ug/L	U	1	J1
B206989	11/16/98	GW06172TE	2,2-Dichloropropane	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	Benzene	1	ug/L	U	1	J1
B206989	11/16/98	GW06172TE	Bromobenzene	1	ug/L	U	1	J1
B206989	11/16/98	GW06172TE	Bromochloromethane	1	ug/L	U	1	V1

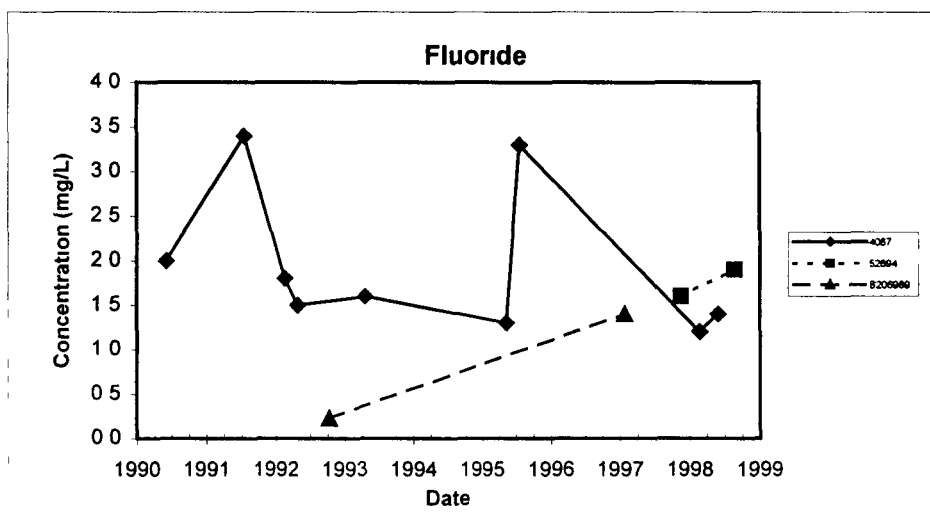
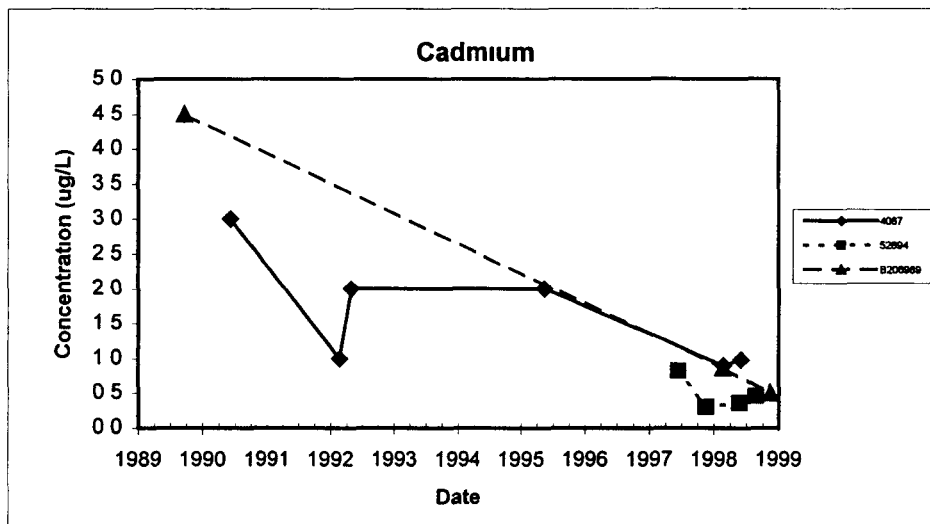
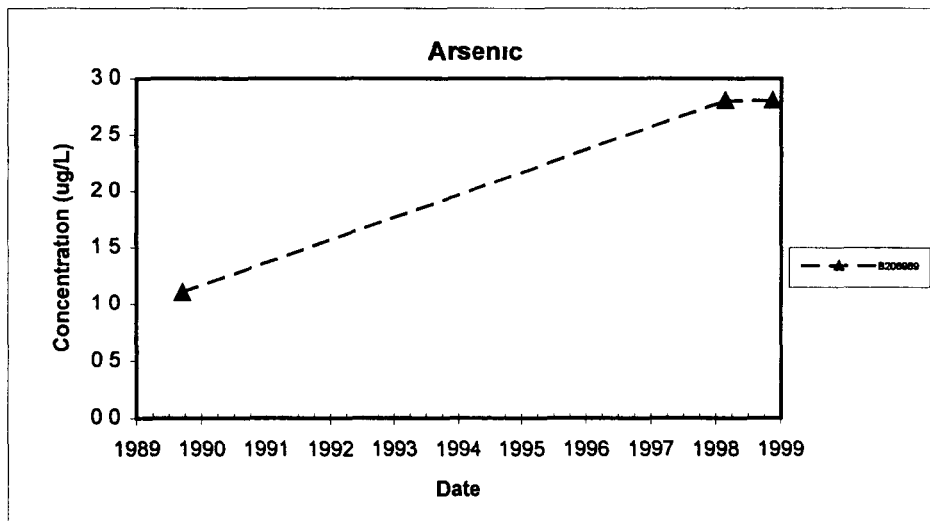
Appendix B Groundwater Analytical Data

Volatile Organic Compounds

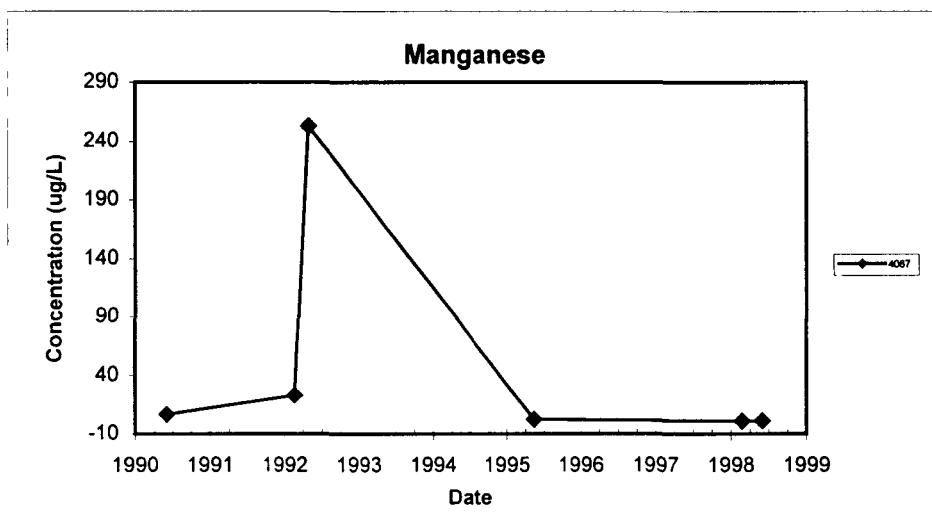
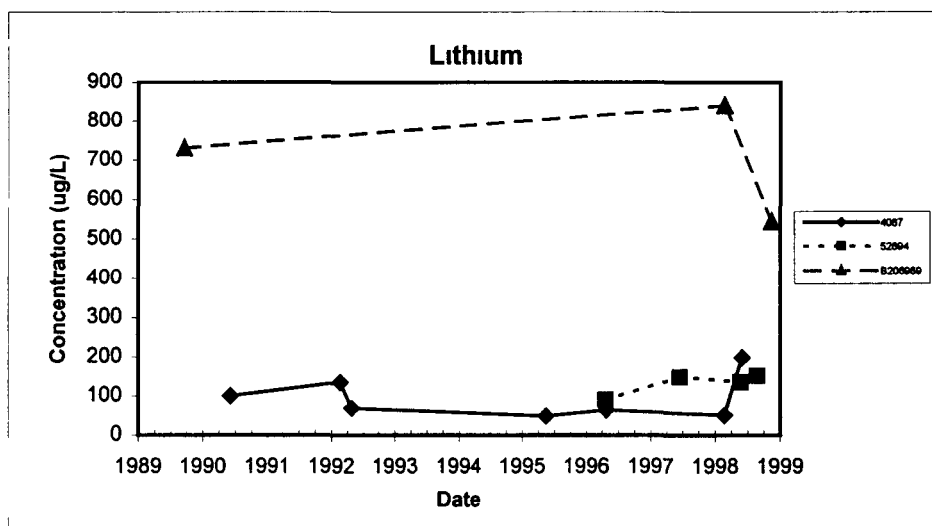
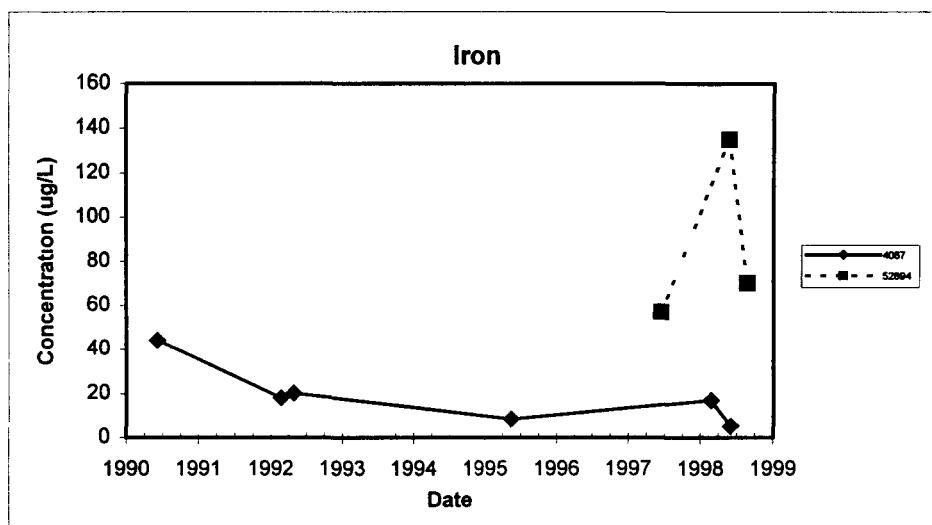
Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
B206989	11/16/98	GW06172TE	Bromodichloromethane	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	Bromoform	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	Bromomethane	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	Carbon Tetrachloride	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	Chlorobenzene	1	ug/L	U	1	J1
B206989	11/16/98	GW06172TE	Chloroethane	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	Chloroform	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	Chloromethane	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	cis-1,2-Dichloroethene	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	cis-1,3-Dichloropropene	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	Dibromochloromethane	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	Dibromomethane	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	Dichlorodifluoromethane	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	Ethylbenzene	1	ug/L	U	1	J1
B206989	11/16/98	GW06172TE	Hexachlorobutadiene	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	Isopropylbenzene	1	ug/L	U	1	J1
B206989	11/16/98	GW06172TE	Methylene Chloride	4	ug/L		1	J1
B206989	11/16/98	GW06172TE	Naphthalene	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	n-Butylbenzene	1	ug/L	U	1	J1
B206989	11/16/98	GW06172TE	n-Propylbenzene	1	ug/L	U	1	J1
B206989	11/16/98	GW06172TE	o-Chlorotoluene	1	ug/L	U	1	J1
B206989	11/16/98	GW06172TE	p-Chlorotoluene	1	ug/L	U	1	J1
B206989	11/16/98	GW06172TE	p-Isopropyltoluene	1	ug/L	U	1	J1
B206989	11/16/98	GW06172TE	sec-Butylbenzene	1	ug/L	U	1	J1
B206989	11/16/98	GW06172TE	Styrene	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	tert-Butylbenzene	1	ug/L	U	1	J1
B206989	11/16/98	GW06172TE	Tetrachloroethene	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	Toluene	1	ug/L	U	1	J1
B206989	11/16/98	GW06172TE	Total Xylenes	1	ug/L	U	1	J1
B206989	11/16/98	GW06172TE	trans-1,2-Dichloroethene	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	trans-1,3-Dichloropropene	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	Trichloroethene	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	Trichlorofluoromethane	1	ug/L	U	1	V1
B206989	11/16/98	GW06172TE	Vinyl Chloride	1	ug/L	U	1	V1

Appendix C: Trend Plots of Selected Analytes for
Downgradient Wells

Appendix C
Trend Plots for Selected Analytes-
Downgradient Wells at the Present Sanitary Landfill

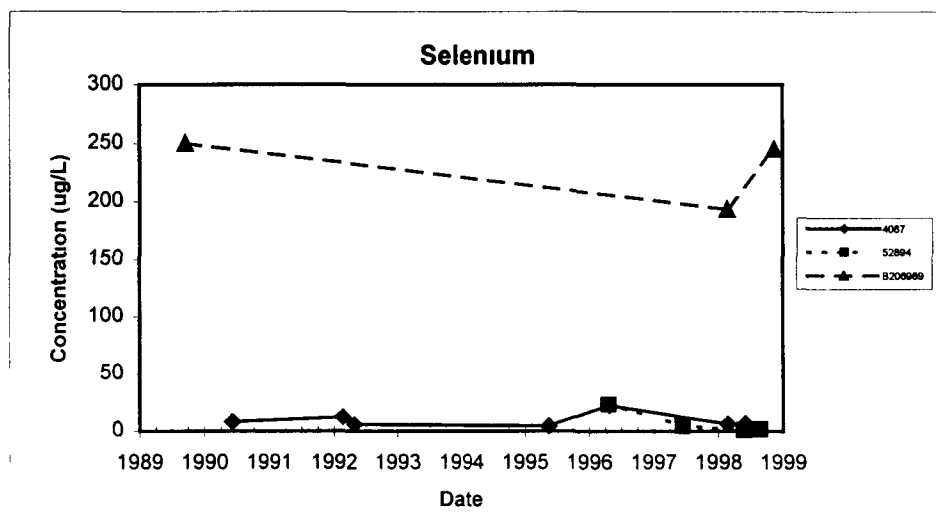
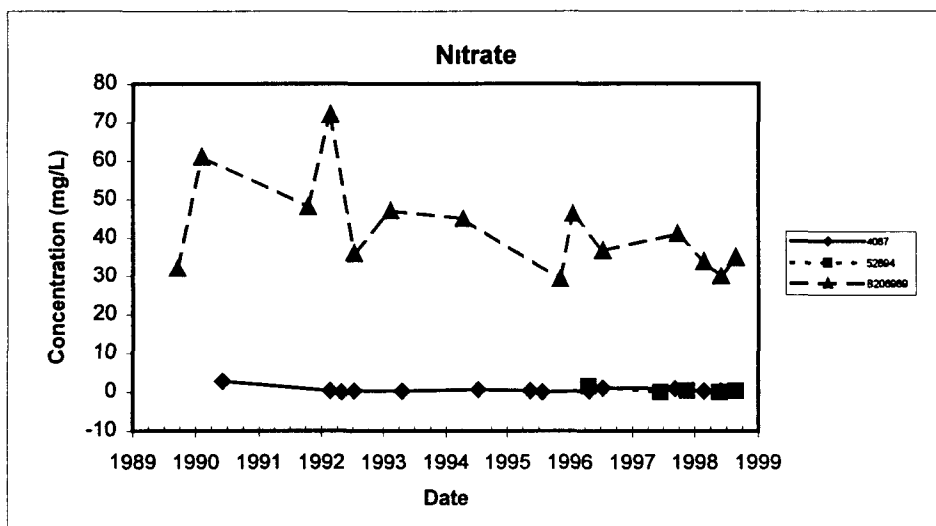
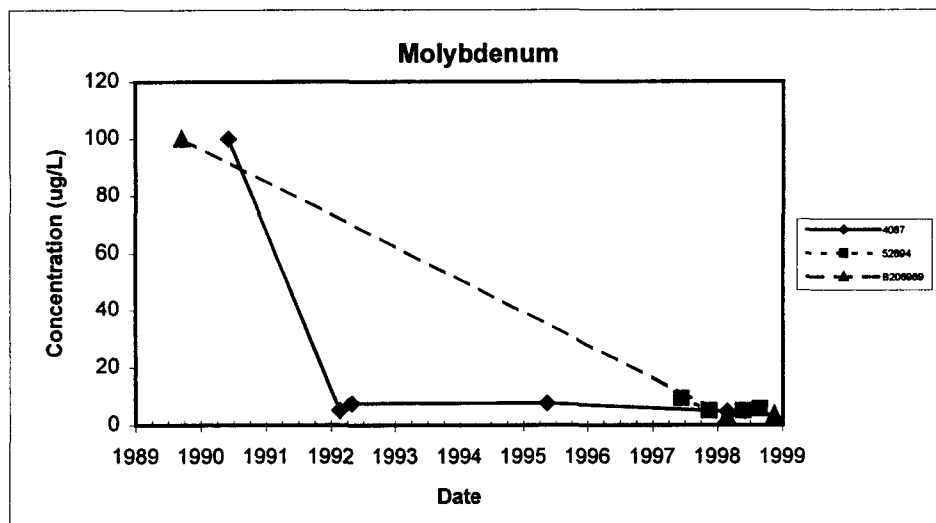


Appendix C
Trend Plots for Selected Analytes-
Downgradient Wells at the Present Sanitary Landfill

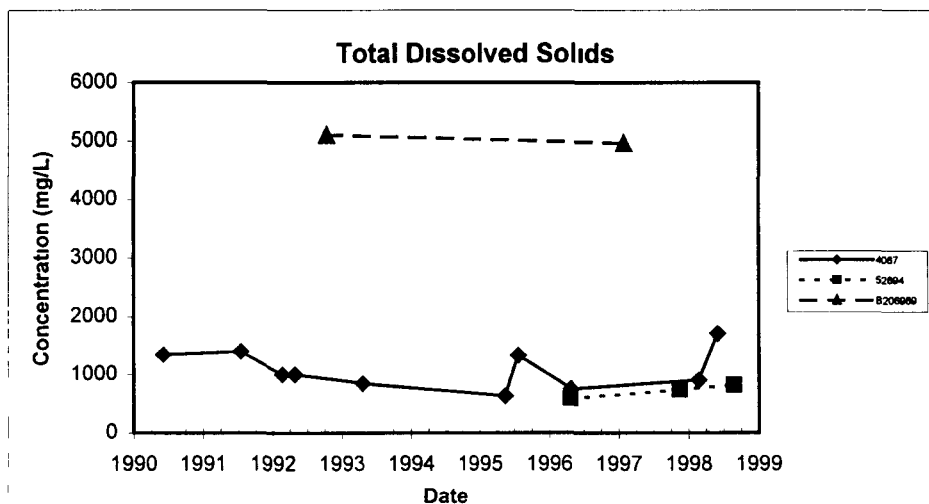
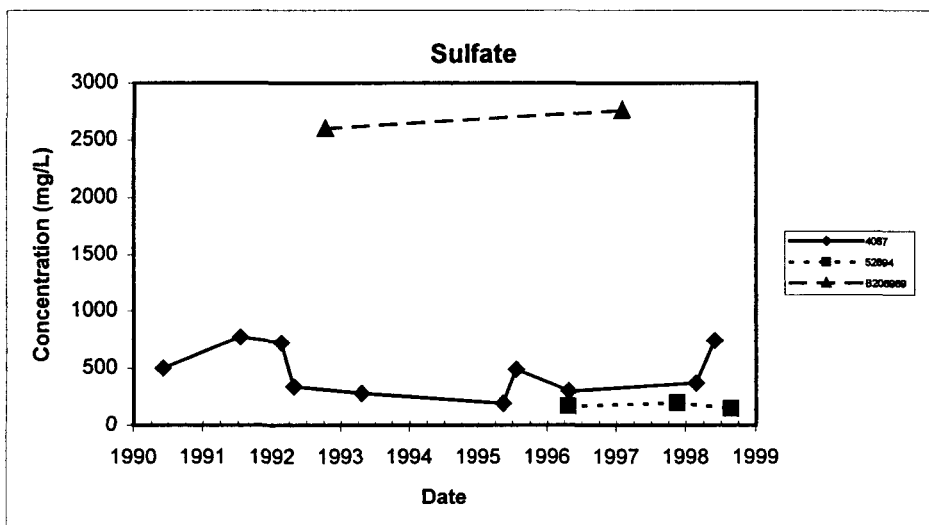
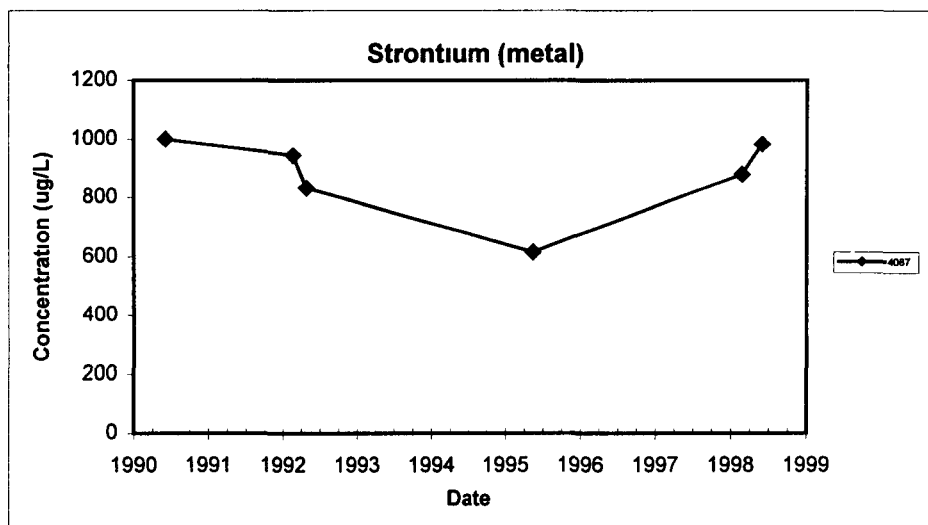


100

Appendix C
Trend Plots for Selected Analytes-
Downgradient Wells at the Present Sanitary Landfill

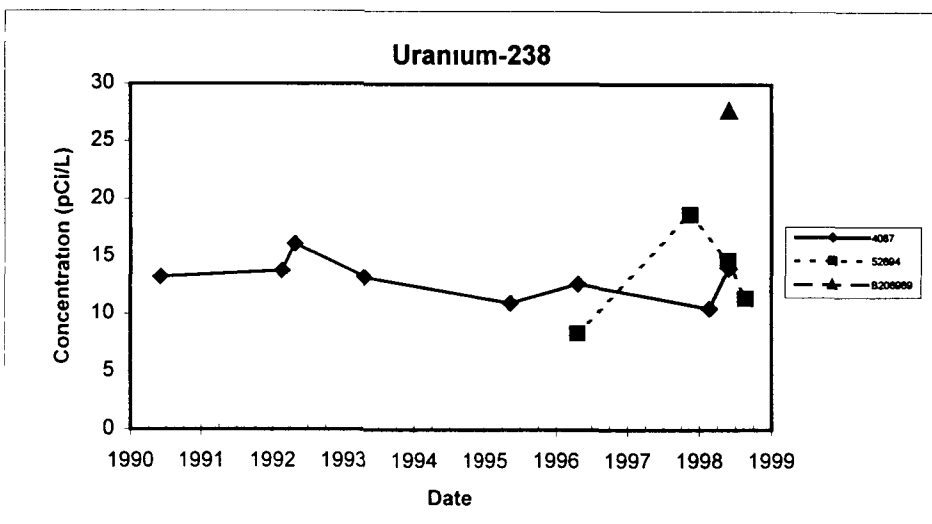
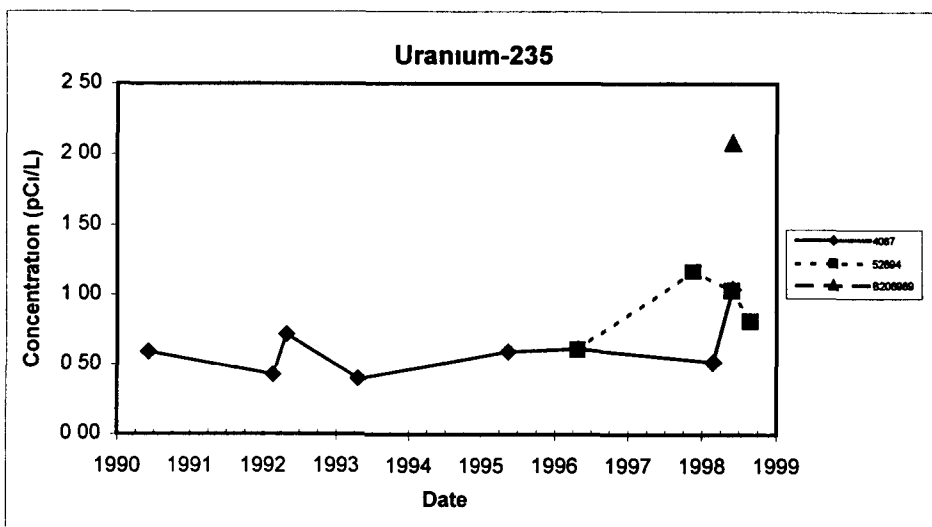
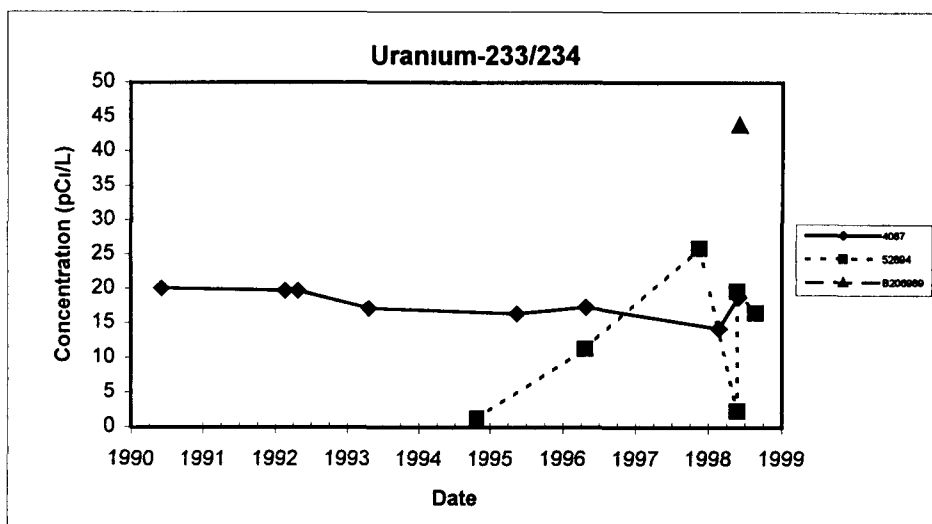


Appendix C
Trend Plots for Selected Analytes-
Downgradient Wells at the Present Sanitary Landfill



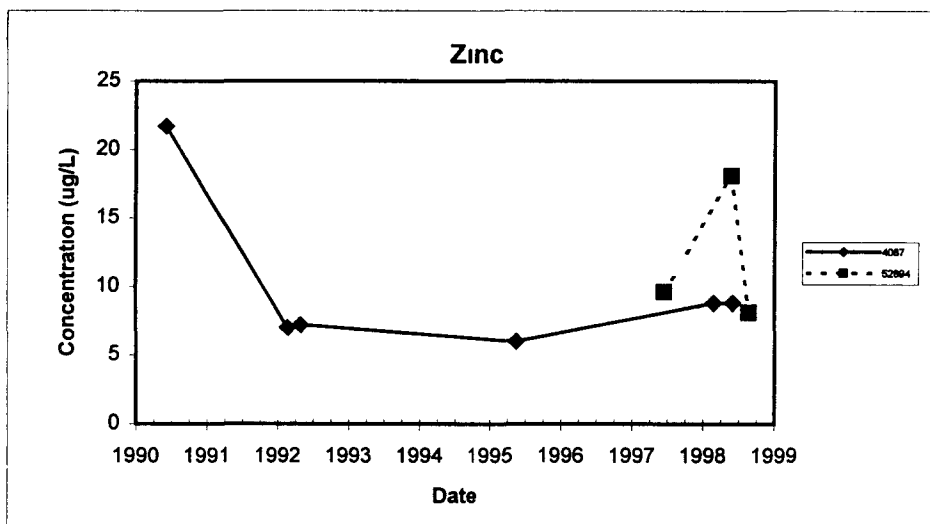
102

Appendix C
Trend Plots for Selected Analytes-
Downgradient Wells at the Present Sanitary Landfill



103

Appendix C
Trend Plots for Selected Analytes-
Downgradient Wells at the Present Sanitary Landfill



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Appendix D: Surface Water Analytical Data

Appendix D: Surface Water Analytical Data

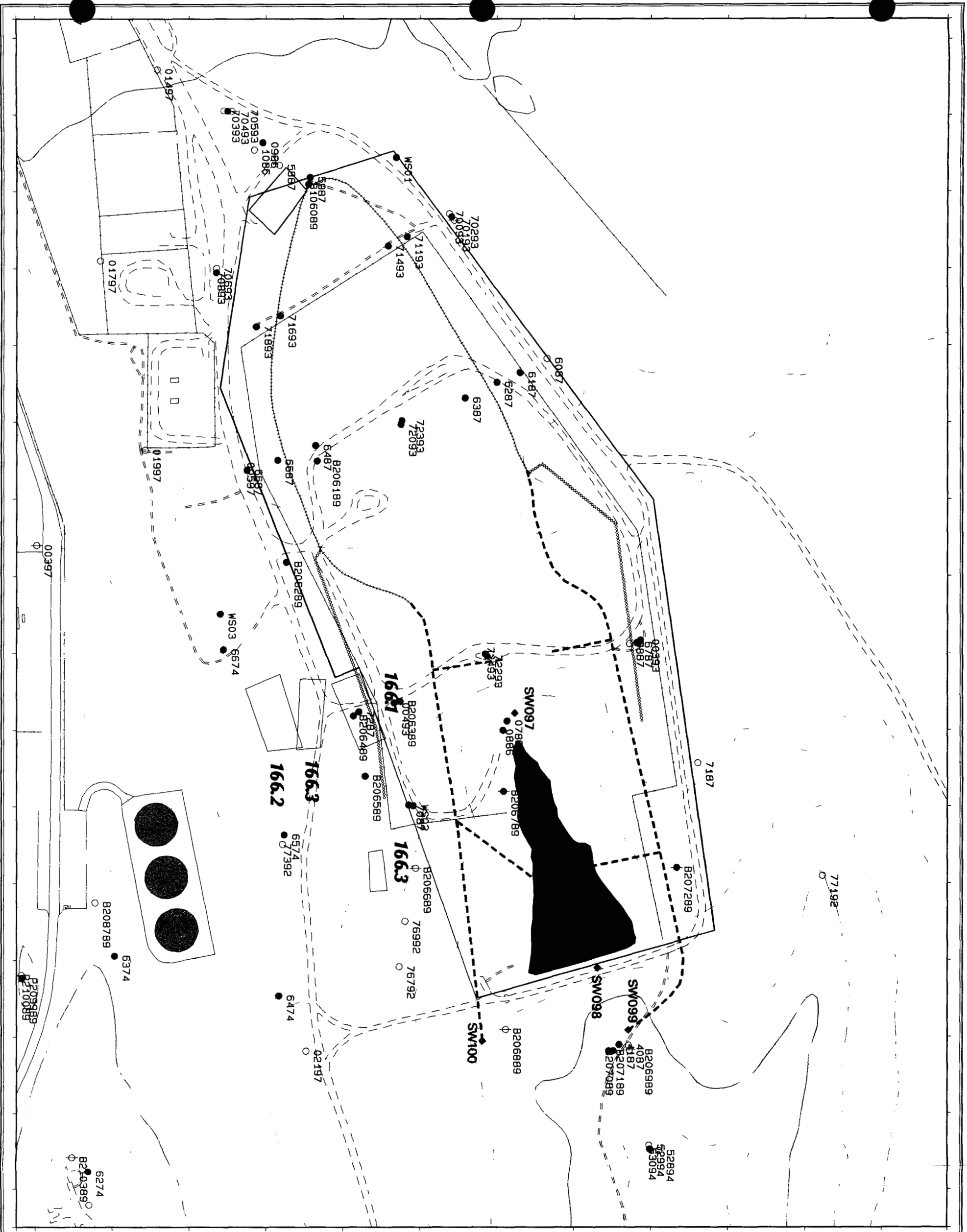
Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
SW99	12/30/98	GW06198TE	1,1,1,2-TETRACHLOROETHANE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	1,1,1-TRICHLOROETHANE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	1,1,2,2-TETRACHLOROETHANE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	1,1,2-TRICHLOROETHANE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	1,1-DICHLOROETHANE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	1,1-DICHLOROETHENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	1,1-DICHLOROPROPENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	1,2,3-TRICHLOROBENZENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	1,2,3-TRICHLOROPROPANE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	1,2,4-TRICHLOROBENZENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	1,2-DIBROMOETHANE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	1,2-DICHLOROBENZENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	1,2-DICHLOROETHANE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	1,2-DICHLOROPROPANE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	1,3-DICHLOROBENZENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	1,3-DICHLOROPROPANE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	1,4-DICHLOROBENZENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	2,2-DICHLOROPROPANE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	4-ISOPROPYLTOLUENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	BENZENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	BENZENE, 1,2,4-TRIMETHYL	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	BENZENE, 1,3,5-TRIMETHYL-	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	BROMOBENZENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	BROMOCHLOROMETHANE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	BROMODICHLOROMETHANE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	BROMOFORM	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	BROMOMETHANE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	CARBON TETRACHLORIDE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	CHLOROBENZENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	CHLOROETHANE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	CHLOROFORM	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	CHLOROMETHANE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	cis-1,2-DICHLOROETHENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	cis-1,3-DICHLOROPROPENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	DIBROMOCHLOROMETHANE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	DIBROMOMETHANE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	DICHLORODIFLUOROMETHANE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	ETHYLBENZENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	HEXACHLOROBUTADIENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	ISOPROPYLBENZENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	METHYLENE CHLORIDE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	NAPHTHALENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	n-BUTYLBENZENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	n-PROPYLBENZENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	o-CHLOROTOLUENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	p-CHLOROTOLUENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	PROPANE 1 2-DIBROMO-3-CHL	1	UG/L	U	1	R1
SW99	12/30/98	GW06198TE	sec-BUTYLBENZENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	STYRENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	tert-BUTYLBENZENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	TETRACHLOROETHENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	TOLUENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	TOTAL XYLENES	1	UG/L	U	1	

Appendix D: Surface Water Analytical Data

Location	Sample Date	Sample #	Analyte	Result	Units	Lab Qualifier	Detection Limit	Validation Qualifier
SW99	12/30/98	GW06198TE	trans-1,2-DICHLOROETHENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	trans-1,3-DICHLOROPROPENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	TRICHLOROETHENE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	TRICHLOROFLUOROMETHANE	1	UG/L	U	1	
SW99	12/30/98	GW06198TE	VINYL CHLORIDE	1	UG/L	U	1	

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Figure 4-1
Groundwater Monitoring Well Locations
at the Present Sanitary Landfill
1998



EXPLANATION

- Groundwater Monitor Well
- UHSU Surficial Material
- Groundwater Monitor Well
- UHSU Bedrock
- Groundwater Monitor Well
- UHSU Bedrock
- ◆ Surface Water Monitoring Location
- Landfill Groundwater Monitoring Well
- All Other Existing Wells
- Abandoned Well
- HSS 166.1, 166.2 and 166.3
- ▨ Slurry Wall
- ▨ GW Intercept System Perforated
- ▨ GW Intercept System Non-Perforated
- ▨ Individual Hazardous Substance Site
- East Landfill Pond
- To Is
- Fences and other barriers
- Contour (20-Foot)
- == Paved road
- - - Dirt road



Scale 1:2500
1 inch represents approximately 244 feet



Site Plan Coord. at Project
Col. and Cont. at Zo
Det. m. NAD27

U.S. Department of Energy
Rocky Flats Environmental Technology Site



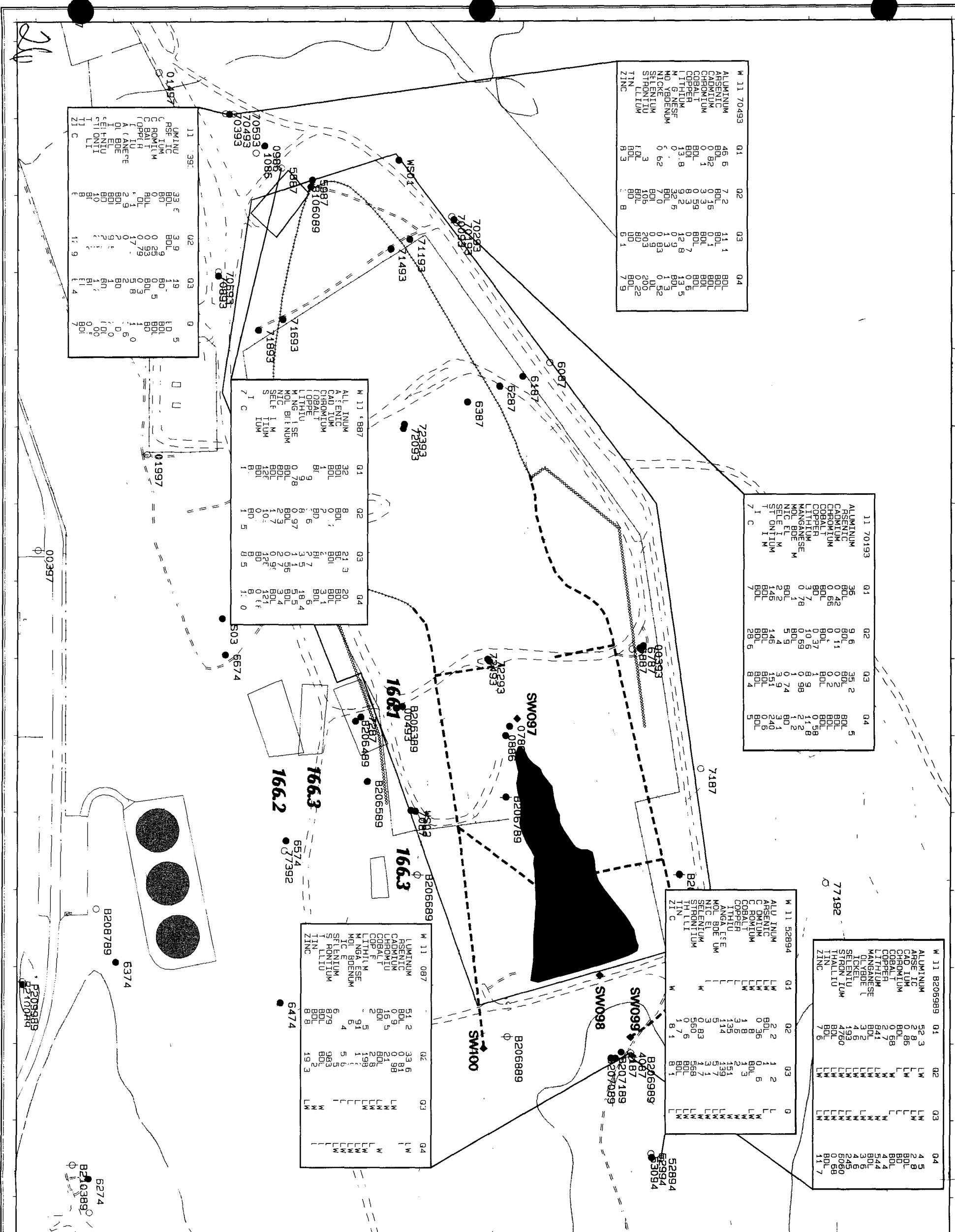
Rocky Mountain
Remediation Services, L.L.C.
Geologic Information Systems Group
Rocky Flats Environmental
Technology Site
Address: 10000 10th Ave. S.W.
Boulder, CO 80504-4444

	Q1	Q2	Q3	Q4
W 11 5289	01	02	03	04
NITROIDE	1W	0.05	1.9	1W
NITRATE/NITRATE	1W	1W	3.3	1W
SOLITE	1W	1W	820	1W
105	1W	1W	1W	1W

	Q1	Q2	Q3	Q4
W 11 B206989				
F UORIDE	LM	30	LM	LM
NITRATE/	LM	LM	35	LM
ITRITE	LM	LM	N	LM
SULFATE	LM	LM		LM
TOP	LM	LM		LM

- NOTE:
LM Lactated Water
Source of data available upon request.

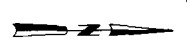
Figure 6 2
Selected Metals (ug/L)
at the Present Sanitary Landfill
1998



EXPLANATION

- Groundwater Monitor Well
- UHSU Surficial Material
- Groundwater Monitor Well
- UHSU Bedrock
- Groundwater Monitor Well
- LHSU Bedrock
- Surface Water Monitoring Location
- Landfill Groundwater Monitoring Well
- All Other Existing Well
- Abandoned Wells
- HSS 166 1 166 2 and 166 3
- Shallow Well
- GW Intercept System Perforated
- GW Intercept System Non-Perforated
- Individual Hazardous Substance Site
- East Landfill Pond
- Tanks
- Fences and other barriers
- Contour (20-Foot)
- Paved road
- Dirt road

NOTE:
Data Source: Data from various sources as indicated on map.



Scale 1:2830
1 inch represents approximately 244 feet

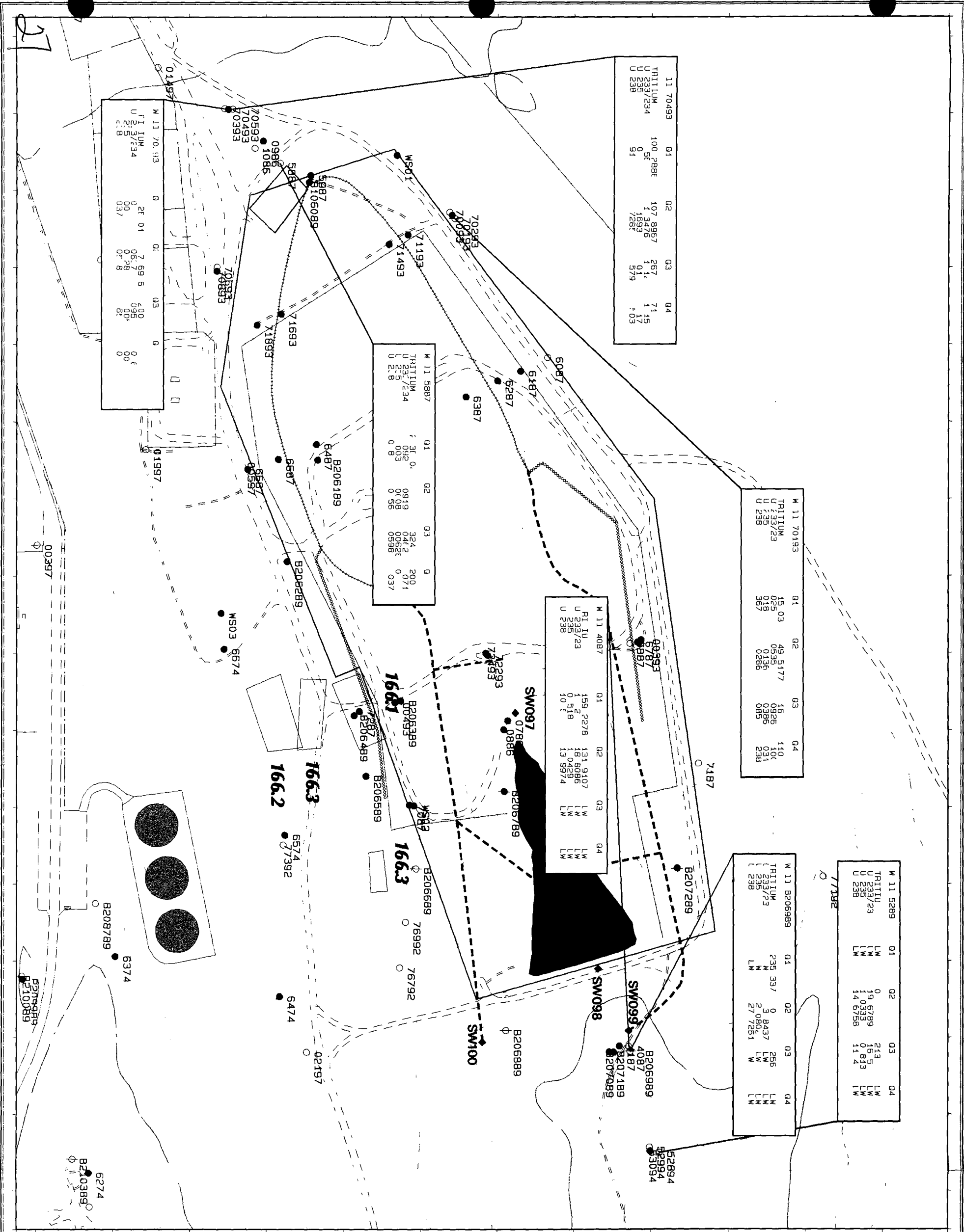
Site Plan Co. d at Project
Coal and Cement at 2
Datum NAD27

U S Department of Energy
Rocky Flats Environmental Technology Site



Rocky Flats Environmental Technology Site
Rocky Flats Environmental Technology Site
Rocky Flats Environmental Technology Site















Figure 6-3
Tritium & Dissolved Uranium (pCi/L)
at the Present Sanitary Landfill
1998



1998

EXPLANATION

- Groundwater Monitor Well
UHSU Surface Material
- ⊕ Groundwater Monitor Well
UHSU Bedrock
- Groundwater Monitor Well
LHSU Bedrock
- ◆ Surface Water Monitoring Location

- | | |
|---|--------------------------------------|
|  | Landfill Groundwater Monitoring Well |
|  | All Other Existing Well |
|  | Abandoned Wells |
|  | HSS 166 1 166.2 and 166 3 |
|  | Slurry Well |
|  | GW Intercept System Perforated |
|  | GW Intercept System N n-Perforated |
|  | Individual Hazardous Substance Site |
|  | East Landfill Pond |
|  | Tanks |
|  | Fences and other barriers |
|  | Contour (20-Foot) |
|  | Paved road |
|  | Dirt road |

NOTE
BDL Below Detection Limit
LW Limited Water
RQ Required Data
N/S Not Sampled

Source of data available upon request



Soil = 1 2830
1 h present approximately 244 feet



Stat Plan Coo di ar Pr ject
Col ado Cent al Z
Datum NAD27

**U S Department of Energy
Rocky Flats Environmental Technology Site**

Prepared
by:

PMPS
Rocky Mountain
Remediation Services, LLC
Geography: Iwerksdale State and County
Rock
Box 464
en 90402-0464

MAP ID- 88-0266

July 02 1999